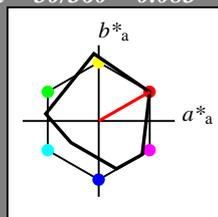


Eingabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 30/360 = 0.083$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton R  
 LCH\*Ma: 50 77 30  
 olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



**MRS18; adaptierte CIELAB-Daten**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

**relative CIELAB lab\***

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	56.71	-0.23	2.14
LAB*LABa	56.71	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

**standard and adapted CIELAB**

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	0.01	0.01	-

**relative CIELAB lab\***

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

**relative Inform. Technology (IT)**

olvi3*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	0.0

**standard and adapted CIELAB**

LAB*LAB	72.52	32.93	22.4
LAB*LABa	72.52	33.47	19.18
LAB*TCHa	75.0	38.58	29.82

**relative CIELAB lab\***

lab*lab	0.704	0.434	0.249
lab*tch	0.75	0.5	0.083
lab*nch	0.0	0.5	0.083

**relative Natural Colour (NC)**

lab*lrj	0.704	0.496	0.06
lab*tce	0.75	0.5	0.019
lab*nce	0.0	0.5	0.071

**relative Inform. Technology (IT)**

olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5

**standard and adapted CIELAB**

LAB*LAB	33.82	33.67	19.79
LAB*LABa	33.82	33.47	19.18
LAB*TCHa	25.01	38.58	29.82

**relative CIELAB lab\***

lab*lab	0.204	0.434	0.249
lab*tch	0.25	0.5	0.083
lab*nch	0.5	0.5	0.083

**relative Natural Colour (NC)**

lab*lrj	0.204	0.496	0.06
lab*tce	0.25	0.5	0.019
lab*nce	0.5	0.5	0.071

$n^* = 0.50$

relative Buntheit  $c^*$

**relative Inform. Technology (IT)**

olvi3*	1.0	0.0	0.0	(1.0)
cmyn3*	0.0	1.0	1.0	(0.0)
olvi4*	1.0	0.0	0.0	1.0
cmyn4*	0.0	1.0	1.0	0.0

**standard and adapted CIELAB**

LAB*LAB	49.63	66.84	40.03
LAB*LABa	49.63	66.95	38.36
LAB*TCHa	50.0	77.16	29.82

**relative CIELAB lab\***

lab*lab	0.409	0.867	0.497
lab*tch	0.5	1.0	0.083
lab*nch	0.0	1.0	0.083

**relative Natural Colour (NC)**

lab*lrj	0.409	0.993	0.119
lab*tce	0.5	1.0	0.019
lab*nce	0.0	1.0	0.071

$n^* = 0.00$

Schwarzheit  $n^*$

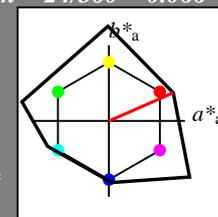
relative Buntheit  $c^*$

Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 24/360 = 0.066$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton R  
 LCH\*Ma: 47 92 24  
 olv\*Ma: 1.0 0.0 0.0

Dreiecks-Helligkeit  $t^*$



**NCS11; adaptierte CIELAB-Daten**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

**relative CIELAB lab\***

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

**relative Inform. Technology (IT)**

olvi3*	1.0	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	0.5	0.5	1.0
cmyn4*	0.0	0.5	0.5	0.0

**standard and adapted CIELAB**

LAB*LAB	71.27	42.34	18.63
LAB*LABa	71.27	42.31	18.62
LAB*TCHa	75.0	46.23	23.75

**relative CIELAB lab\***

lab*lab	0.714	0.458	0.201
lab*tch	0.75	0.5	0.066
lab*nch	0.0	0.5	0.066

**relative Natural Colour (NC)**

lab*lrj	0.714	0.5	-0.011
lab*tce	0.75	0.5	0.996
lab*nce	0.0	0.5	0.996

**relative Inform. Technology (IT)**

olvi3*	0.5	0.0	0.0	(1.0)
cmyn3*	0.5	1.0	1.0	(0.0)
olvi4*	1.0	0.5	0.5	0.5
cmyn4*	0.0	0.5	0.5	0.5

**standard and adapted CIELAB**

LAB*LAB	29.07	42.38	18.64
LAB*LABa	29.07	42.31	18.62
LAB*TCHa	25.01	46.23	23.75

**relative CIELAB lab\***

lab*lab	0.214	0.458	0.201
lab*tch	0.25	0.5	0.066
lab*nch	0.5	0.5	0.066

**relative Natural Colour (NC)**

lab*lrj	0.214	0.5	-0.011
lab*tce	0.25	0.5	0.996
lab*nce	0.5	0.5	0.996

$n^* = 0.50$

relative Buntheit  $c^*$

**relative Inform. Technology (IT)**

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

**standard and adapted CIELAB**

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

**relative CIELAB lab\***

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Buntheit  $c^*$

**relative Inform. Technology (IT)**

olvi3*	1.0	0.0	0.0	(1.0)
cmyn3*	0.0	1.0	1.0	(0.0)
olvi4*	1.0	0.0	0.0	1.0
cmyn4*	0.0	1.0	1.0	0.0

**standard and adapted CIELAB**

LAB*LAB	47.15	84.68	37.26
LAB*LABa	47.15	84.63	37.24
LAB*TCHa	50.0	92.46	23.75

**relative CIELAB lab\***

lab*lab	0.428	0.915	0.403
lab*tch	0.5	1.0	0.066
lab*nch	0.0	1.0	0.066

**relative Natural Colour (NC)**

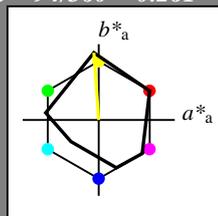
lab*lrj
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Eingabe: Farbmatisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 94/360 = 0.261$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton J  
 LCH\*Ma: 91 89 94  
 olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



**MRS18; adaptierte CIELAB-Daten**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

**relative CIELAB lab\***

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	56.71	-0.23	2.14
LAB*LABa	56.71	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

**standard and adapted CIELAB**

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	8.01	0.01	-

**relative CIELAB lab\***

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

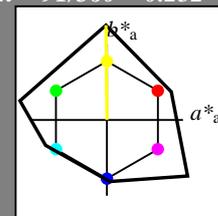
$n^* = 1.0$

Ausgabe: Farbmatisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 91/360 = 0.252$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton J  
 LCH\*Ma: 91 125 91  
 olv\*Ma: 1.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



**NCS11; adaptierte CIELAB-Daten**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

**relative CIELAB lab\***

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	0.5	(1.0)
cmyn3*	0.0	0.0	0.5	(0.0)
olvi4*	1.0	1.0	0.5	1.0
cmyn4*	0.0	0.0	0.5	0.0

**standard and adapted CIELAB**

LAB*LAB	93.38	-0.62	62.5
LAB*LABa	93.38	-0.63	62.5
LAB*TCHa	75.0	62.5	90.59

**relative CIELAB lab\***

lab*lab	0.976	-0.004	0.5
lab*tch	0.75	0.5	0.252
lab*nch	0.0	0.5	0.252

**relative Natural Colour (NC)**

lab*lrj	0.976	0.02	0.499
lab*tce	0.75	0.5	0.243
lab*nce	0.0	0.5	r97j

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.0	(1.0)
cmyn3*	0.5	0.5	1.0	(0.0)
olvi4*	1.0	1.0	0.5	0.5
cmyn4*	0.0	0.0	0.5	0.5

**standard and adapted CIELAB**

LAB*LAB	51.18	-0.59	62.51
LAB*LABa	51.18	-0.63	62.5
LAB*TCHa	25.01	62.5	90.59

**relative CIELAB lab\***

lab*lab	0.476	-0.004	0.5
lab*tch	0.25	0.5	0.252
lab*nch	0.5	0.5	0.252

**relative Natural Colour (NC)**

lab*lrj	0.476	0.02	0.499
lab*tce	0.25	0.5	0.243
lab*nce	0.5	0.5	r97j

$n^* = 0.00$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	0.5	(1.0)
cmyn3*	0.0	0.0	0.5	(0.0)
olvi4*	1.0	1.0	0.5	1.0
cmyn4*	0.0	0.0	0.5	0.0

**standard and adapted CIELAB**

LAB*LAB	93.05	-4.11	48.97
LAB*LABa	93.05	-3.17	44.37
LAB*TCHa	75.0	44.48	94.1

**relative CIELAB lab\***

lab*lab	0.969	-0.035	0.499
lab*tch	0.75	0.5	0.261
lab*nch	0.0	0.5	0.261

**relative Natural Colour (NC)**

lab*lrj	0.969	-0.023	0.499
lab*tce	0.75	0.5	0.258
lab*nce	0.0	0.5	j03g

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.0	(1.0)
cmyn3*	0.5	0.5	1.0	(0.0)
olvi4*	1.0	1.0	0.5	0.5
cmyn4*	0.0	0.0	0.5	0.5

**standard and adapted CIELAB**

LAB*LAB	54.35	-3.37	46.36
LAB*LABa	54.35	-3.17	44.37
LAB*TCHa	25.01	44.48	94.1

**relative CIELAB lab\***

lab*lab	0.47	-0.035	0.499
lab*tch	0.25	0.5	0.261
lab*nch	0.5	0.5	0.261

**relative Natural Colour (NC)**

lab*lrj	0.47	-0.023	0.499
lab*tce	0.25	0.5	0.258
lab*nce	0.5	0.5	j03g

$n^* = 0.00$

Schwarzhent  $n^*$

relative Buntheit  $c^*$

0,25 0,50  $n^* = 0.50$  0,75 1,00

relative Buntheit  $c^*$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	0.0	(1.0)
cmyn3*	0.0	0.0	1.0	(0.0)
olvi4*	1.0	1.0	0.0	1.0
cmyn4*	0.0	0.0	1.0	0.0

**standard and adapted CIELAB**

LAB*LAB	90.69	-7.25	93.17
LAB*LABa	90.69	-6.36	88.73
LAB*TCHa	50.0	88.96	94.1

**relative CIELAB lab\***

lab*lab	0.939	-0.071	0.997
lab*tch	0.5	1.0	0.261
lab*nch	0.0	1.0	0.261

**relative Natural Colour (NC)**

lab*lrj	0.939	-0.048	0.999
lab*tce	0.5	1.0	0.258
lab*nce	0.0	1.0	j03g

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.0	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

$n^* = 0.00$

Schwarzhent  $n^*$

relative Buntheit  $c^*$

0,25 0,50  $n^* = 0.50$  0,75 1,00

relative Buntheit  $c^*$

0,25 0,50  $n^* = 0.50$  0,75 1,00

relative Buntheit  $c^*$

0,25 0,50  $n^* = 0.50$  0,75 1,00

relative Buntheit  $c^*$

0,25 0,50  $n^* = 0.50$  0,75 1,00

relative Buntheit  $c^*$

0,25 0,50  $n^* = 0.50$  0,75 1,00

relative Buntheit  $c^*$

BAM-Prüfvorlage TG13; Farbmatrik-Systeme MRS18 & NCS11

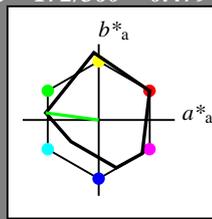
D

Eingabe: Farbmetrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 172/360 = 0.479$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G  
 LCH\*Ma: 52 70 172  
 olv\*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang  
 $u^*_{rel} = 91$   
 %Regularität  
 $g^*_{H,rel} = 41$   
 $g^*_{C,rel} = 52$

relative Inform. Technology (IT)  
 olvi3\* 1.0 1.0 1.0 (1.0)  
 cmyn3\* 0.0 0.0 0.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 1.0  
 cmyn4\* 0.0 0.0 0.0 0.0

standard and adapted CIELAB  
 LAB\*LAB 95.41 -0.97 4.75  
 LAB\*LABa 95.41 0.0 0.0  
 LAB\*TCHa 99.99 0.01 -

relative CIELAB lab\*  
 lab\*lab 1.0 0.0 0.0  
 lab\*tch 1.0 0.0 -  
 lab\*nch 0.0 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 1.0 0.0 0.0  
 lab\*tce 1.0 0.0 -  
 lab\*nce 0.0 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.5 0.5 0.5 (1.0)  
 cmyn3\* 0.5 0.5 0.5 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.5  
 cmyn4\* 0.0 0.0 0.0 0.5

standard and adapted CIELAB  
 LAB\*LAB 56.71 -0.23 2.14  
 LAB\*LABa 56.71 0.0 0.0  
 LAB\*TCHa 50.0 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.5 0.0 0.0  
 lab\*tch 0.5 0.0 -  
 lab\*nch 0.5 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 0.5 0.0 0.0  
 lab\*tce 0.5 0.0 -  
 lab\*nce 0.5 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.0 0.0 0.0 (1.0)  
 cmyn3\* 1.0 1.0 1.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.0  
 cmyn4\* 0.0 0.0 0.0 1.0

standard and adapted CIELAB  
 LAB\*LAB 18.02 0.5 -0.46  
 LAB\*LABa 18.02 0.0 0.0  
 LAB\*TCHa 8.01 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.0 0.0 0.0  
 lab\*tch 0.0 0.0 -  
 lab\*nch 1.0 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 0.0 0.0 0.0  
 lab\*tce 0.0 0.0 -  
 lab\*nce 1.0 0.0 -

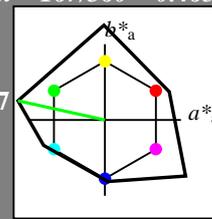
$n^* = 1.0$

Ausgabe: Farbmetrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 167/360 = 0.465$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G  
 LCH\*Ma: 63 117 167  
 olv\*Ma: 0.0 1.0 0.0

Dreiecks-Helligkeit  $t^*$



NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang  
 $u^*_{rel} = 149$   
 %Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

relative Inform. Technology (IT)  
 olvi3\* 1.0 1.0 1.0 (1.0)  
 cmyn3\* 0.0 0.0 0.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 1.0  
 cmyn4\* 0.0 0.0 0.0 0.0

standard and adapted CIELAB  
 LAB\*LAB 95.41 0.0 -0.01  
 LAB\*LABa 95.41 0.0 0.0  
 LAB\*TCHa 99.99 0.01 -

relative CIELAB lab\*  
 lab\*lab 1.0 0.0 0.0  
 lab\*tch 1.0 0.0 -  
 lab\*nch 0.0 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 1.0 0.0 0.0  
 lab\*tce 1.0 0.0 -  
 lab\*nce 0.0 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.5 0.5 0.5 (1.0)  
 cmyn3\* 0.5 0.5 0.5 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.5  
 cmyn4\* 0.0 0.0 0.0 0.5

standard and adapted CIELAB  
 LAB\*LAB 53.21 0.04 0.0  
 LAB\*LABa 53.21 0.0 0.0  
 LAB\*TCHa 50.0 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.5 0.0 0.0  
 lab\*tch 0.5 0.0 -  
 lab\*nch 0.5 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 0.5 0.0 0.0  
 lab\*tce 0.5 0.0 -  
 lab\*nce 0.5 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.0 0.0 0.0 (1.0)  
 cmyn3\* 1.0 1.0 1.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.0  
 cmyn4\* 0.0 0.0 0.0 1.0

standard and adapted CIELAB  
 LAB\*LAB 11.01 0.07 0.01  
 LAB\*LABa 11.01 0.0 0.0  
 LAB\*TCHa 0.01 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.0 0.0 0.0  
 lab\*tch 0.0 0.0 -  
 lab\*nch 1.0 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 0.0 0.0 0.0  
 lab\*tce 0.0 0.0 -  
 lab\*nce 1.0 0.0 -

$n^* = 1.0$

relative Inform. Technology (IT)  
 olvi3\* 0.5 1.0 0.5 (1.0)  
 cmyn3\* 0.5 0.0 0.5 (0.0)  
 olvi4\* 0.5 1.0 0.5 1.0  
 cmyn4\* 0.5 0.0 0.5 0.0

standard and adapted CIELAB  
 LAB\*LAB 73.75 -35.42 8.02  
 LAB\*LABa 73.75 -34.85 4.72  
 LAB\*TCHa 75.0 35.18 172.29

relative CIELAB lab\*  
 lab\*lab 0.72 -0.494 0.067  
 lab\*tch 0.75 0.5 0.479  
 lab\*nch 0.0 0.5 0.479

relative Natural Colour (NC)  
 lab\*lrj 0.72 -0.496 -0.056  
 lab\*tce 0.75 0.5 0.518  
 lab\*nce 0.0 0.5 g07b

relative Inform. Technology (IT)  
 olvi3\* 0.0 0.5 0.0 (1.0)  
 cmyn3\* 1.0 0.5 1.0 (0.0)  
 olvi4\* 0.5 1.0 0.5 0.5  
 cmyn4\* 0.5 0.0 0.5 0.5

standard and adapted CIELAB  
 LAB\*LAB 35.06 -34.67 5.41  
 LAB\*LABa 35.06 -34.85 4.72  
 LAB\*TCHa 25.01 35.18 172.29

relative CIELAB lab\*  
 lab\*lab 0.22 -0.494 0.067  
 lab\*tch 0.25 0.5 0.479  
 lab\*nch 0.5 0.5 0.479

relative Natural Colour (NC)  
 lab\*lrj 0.22 -0.496 -0.056  
 lab\*tce 0.25 0.5 0.518  
 lab\*nce 0.5 0.5 g07b

$n^* = 0.50$

$n^* = 0.00$   
 Schwarzhheit  $n^*$

relative Buntheit  $c^*$

relative Inform. Technology (IT)  
 olvi3\* 0.5 1.0 0.5 (1.0)  
 cmyn3\* 0.5 0.0 0.5 (0.0)  
 olvi4\* 0.5 1.0 0.5 1.0  
 cmyn4\* 0.5 0.0 0.5 0.0

standard and adapted CIELAB  
 LAB\*LAB 79.24 -57.11 12.67  
 LAB\*LABa 79.24 -57.12 12.67  
 LAB\*TCHa 75.0 58.52 167.5

relative CIELAB lab\*  
 lab\*lab 0.808 -0.487 0.108  
 lab\*tch 0.75 0.5 0.465  
 lab\*nch 0.0 0.5 0.465

relative Natural Colour (NC)  
 lab\*lrj 0.808 -0.497 -0.037  
 lab\*tce 0.75 0.5 0.512  
 lab\*nce 0.0 0.5 g04b

relative Inform. Technology (IT)  
 olvi3\* 0.0 0.5 0.0 (1.0)  
 cmyn3\* 1.0 0.5 1.0 (0.0)  
 olvi4\* 0.5 1.0 0.5 0.5  
 cmyn4\* 0.5 0.0 0.5 0.5

standard and adapted CIELAB  
 LAB\*LAB 37.04 -57.07 12.69  
 LAB\*LABa 37.04 -57.12 12.67  
 LAB\*TCHa 25.01 58.52 167.5

relative CIELAB lab\*  
 lab\*lab 0.309 -0.487 0.108  
 lab\*tch 0.25 0.5 0.465  
 lab\*nch 0.5 0.5 0.465

relative Natural Colour (NC)  
 lab\*lrj 0.309 -0.497 -0.037  
 lab\*tce 0.25 0.5 0.512  
 lab\*nce 0.5 0.5 g04b

$n^* = 0.50$

$n^* = 0.00$   
 Schwarzhheit  $n^*$

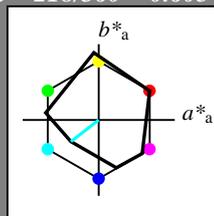
relative Buntheit  $c^*$

Eingabe: Farbmatisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 218/360 = 0.605$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G50B  
 LCH\*Ma: 45 46 218  
 olv\*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit  $t^*$



**MRS18; adaptierte CIELAB-Daten**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang  
 $u^*_{rel} = 91$   
 %Regularität  
 $g^*_{H,rel} = 41$   
 $g^*_{C,rel} = 52$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

**relative CIELAB lab\***

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	56.71	-0.23	2.14
LAB*LABa	56.71	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

**standard and adapted CIELAB**

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	0.01	0.01	-

**relative CIELAB lab\***

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

**relative Inform. Technology (IT)**

olvi3*	0.5	1.0	1.0	(1.0)
cmyn3*	0.5	0.0	0.0	(0.0)
olvi4*	0.5	1.0	1.0	1.0
cmyn4*	0.5	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	70.21	-18.77	-11.17
LAB*LABa	70.21	-18.27	-14.23
LAB*TCHa	75.0	23.17	217.91

**relative CIELAB lab\***

lab*lab	0.674	-0.393	-0.306
lab*tch	0.75	0.5	0.605
lab*nch	0.0	0.5	0.605

**relative Natural Colour (NC)**

lab*lrj	0.674	-0.353	-0.352
lab*tce	0.75	0.5	0.625
lab*nce	0.0	0.5	g49b

**relative Inform. Technology (IT)**

olvi3*	0.0	0.5	0.5	(1.0)
cmyn3*	1.0	0.5	0.5	(0.0)
olvi4*	0.5	1.0	1.0	0.5
cmyn4*	0.5	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	31.52	-18.03	-13.78
LAB*LABa	31.52	-18.27	-14.23
LAB*TCHa	25.01	23.17	217.91

**relative CIELAB lab\***

lab*lab	0.175	-0.393	-0.306
lab*tch	0.25	0.5	0.605
lab*nch	0.5	0.5	0.605

**relative Natural Colour (NC)**

lab*lrj	0.175	-0.353	-0.352
lab*tce	0.25	0.5	0.625
lab*nce	0.5	0.5	g49b

$n^* = 0.50$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

0,25 0,50 0,75 1,00

**relative Inform. Technology (IT)**

olvi3*	0.0	1.0	1.0	(1.0)
cmyn3*	1.0	0.0	0.0	(0.0)
olvi4*	0.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	45.03	-36.57	-27.11
LAB*LABa	45.03	-36.56	-28.47
LAB*TCHa	50.0	46.35	217.91

**relative CIELAB lab\***

lab*lab	0.349	-0.788	-0.613
lab*tch	0.5	1.0	0.605
lab*nch	0.0	1.0	0.605

**relative Natural Colour (NC)**

lab*lrj	0.349	-0.706	-0.706
lab*tce	0.5	1.0	0.625
lab*nce	0.0	1.0	g49b

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

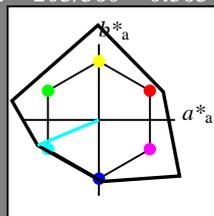
0,25 0,50 0,75 1,00

Ausgabe: Farbmatisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 203/360 = 0.563$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G50B  
 LCH\*Ma: 59 87 203  
 olv\*Ma: 0.0 1.0 1.0

Dreiecks-Helligkeit  $t^*$



**NCS11; adaptierte CIELAB-Daten**

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang  
 $u^*_{rel} = 149$   
 %Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

**relative Inform. Technology (IT)**

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

**relative CIELAB lab\***

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

**relative CIELAB lab\***

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

**relative Inform. Technology (IT)**

olvi3*	0.5	1.0	1.0	(1.0)
cmyn3*	0.5	0.0	0.0	(0.0)
olvi4*	0.5	1.0	1.0	1.0
cmyn4*	0.5	0.0	0.0	0.0

**standard and adapted CIELAB**

LAB*LAB	77.43	-40.26	-16.71
LAB*LABa	77.43	-40.29	-16.72
LAB*TCHa	75.0	43.63	202.54

**relative CIELAB lab\***

lab*lab	0.787	-0.461	-0.191
lab*tch	0.75	0.5	0.563
lab*nch	0.0	0.5	0.563

**relative Natural Colour (NC)**

lab*lrj	0.787	-0.418	-0.272
lab*tce	0.75	0.5	0.592
lab*nce	0.0	0.5	g36b

**relative Inform. Technology (IT)**

olvi3*	0.0	0.5	0.5	(1.0)
cmyn3*	1.0	0.5	0.5	(0.0)
olvi4*	0.5	1.0	1.0	0.5
cmyn4*	0.5	0.0	0.0	0.5

**standard and adapted CIELAB**

LAB*LAB	35.23	-40.23	-16.7
LAB*LABa	35.23	-40.29	-16.72
LAB*TCHa	25.01	43.63	202.54

**relative CIELAB lab\***

lab*lab	0.287	-0.461	-0.191
lab*tch	0.25	0.5	0.563
lab*nch	0.5	0.5	0.563

**relative Natural Colour (NC)**

lab*lrj	0.287	-0.418	-0.272
lab*tce	0.25	0.5	0.592
lab*nce	0.5	0.5	g36b

$n^* = 0.50$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

0,25 0,50 0,75 1,00

**relative Inform. Technology (IT)**

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	0.0	0.0	1.0

**standard and adapted CIELAB**

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

**relative CIELAB lab\***

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

**relative Natural Colour (NC)**

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

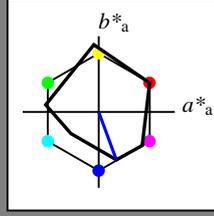
0,25 0,50 0,75 1,00

Eingabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 290/360 = 0.806$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B  
 LCH\*Ma: 37 67 290  
 olv\*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	1.0	(1.0)
cmyn3*	0.5	0.5	0.0	(0.0)
olvi4*	0.5	0.5	1.0	1.0
cmyn4*	0.5	0.5	0.0	0.0

standard and adapted CIELAB

LAB*LAB	66.03	11.17	-28.74
LAB*LABa	66.03	11.59	-31.51
LAB*TCHa	75.0	33.59	290.19

relative CIELAB lab\*

lab*lab	0.62	0.173	-0.468
lab*tch	0.75	0.5	0.806
lab*nch	0.0	0.5	0.806

relative Natural Colour (NC)

lab*lrj	0.62	0.129	-0.482
lab*tce	0.75	0.5	0.791
lab*nce	0.0	0.5	b16r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	1.0	(1.0)
cmyn3*	1.0	1.0	0.0	(0.0)
olvi4*	0.0	0.0	1.0	1.0
cmyn4*	1.0	1.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	36.65	23.33	-62.24
LAB*LABa	36.65	23.18	-63.03
LAB*TCHa	50.0	67.17	290.19

relative CIELAB lab\*

lab*lab	0.241	0.345	-0.937
lab*tch	0.5	1.0	0.806
lab*nch	0.0	1.0	0.806

relative Natural Colour (NC)

lab*lrj	0.241	0.257	-0.965
lab*tce	0.5	1.0	0.791
lab*nce	0.0	1.0	b16r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.5	(1.0)
cmyn3*	1.0	1.0	0.5	(0.0)
olvi4*	0.5	0.5	1.0	0.5
cmyn4*	0.5	0.5	0.0	0.5

standard and adapted CIELAB

LAB*LAB	27.34	11.92	-31.35
LAB*LABa	27.34	11.59	-31.51
LAB*TCHa	25.01	33.59	290.19

relative CIELAB lab\*

lab*lab	0.12	0.173	-0.468
lab*tch	0.25	0.5	0.806
lab*nch	0.5	0.5	0.806

relative Natural Colour (NC)

lab*lrj	0.12	0.129	-0.482
lab*tce	0.25	0.5	0.791
lab*nce	0.5	0.5	b16r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	1.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

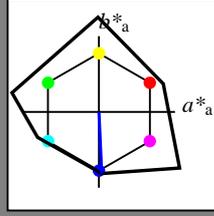


Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 273/360 = 0.757$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B  
 LCH\*Ma: 49 81 273  
 olv\*Ma: 0.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	1.0	(1.0)
cmyn3*	0.5	0.5	0.0	(0.0)
olvi4*	0.5	0.5	1.0	1.0
cmyn4*	0.5	0.5	0.0	0.0

standard and adapted CIELAB

LAB*LAB	72.21	1.85	-40.58
LAB*LABa	72.21	1.82	-40.58
LAB*TCHa	75.0	40.63	272.57

relative CIELAB lab\*

lab*lab	0.725	0.022	-0.498
lab*tch	0.75	0.5	0.757
lab*nch	0.0	0.5	0.757

relative Natural Colour (NC)

lab*lrj	0.725	0.006	-0.499
lab*tce	0.75	0.5	0.752
lab*nce	0.0	0.5	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	1.0	(1.0)
cmyn3*	1.0	1.0	0.0	(0.0)
olvi4*	0.0	0.0	1.0	1.0
cmyn4*	1.0	1.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	49.02	3.7	-81.16
LAB*LABa	49.02	3.65	-81.18
LAB*TCHa	50.0	81.27	272.57

relative CIELAB lab\*

lab*lab	0.45	0.045	-0.998
lab*tch	0.5	1.0	0.757
lab*nch	0.0	1.0	0.757

relative Natural Colour (NC)

lab*lrj	0.45	0.013	-0.999
lab*tce	0.5	1.0	0.752
lab*nce	0.0	1.0	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.5	(1.0)
cmyn3*	1.0	1.0	0.5	(0.0)
olvi4*	0.5	0.5	1.0	0.5
cmyn4*	0.5	0.5	0.0	0.5

standard and adapted CIELAB

LAB*LAB	30.01	1.89	-40.56
LAB*LABa	30.01	1.82	-40.58
LAB*TCHa	25.01	40.63	272.57

relative CIELAB lab\*

lab*lab	0.225	0.022	-0.498
lab*tch	0.25	0.5	0.757
lab*nch	0.5	0.5	0.757

relative Natural Colour (NC)

lab*lrj	0.225	0.006	-0.499
lab*tce	0.25	0.5	0.752
lab*nce	0.5	0.5	b00r



relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	1.0	1.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

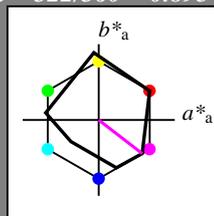
$n^* = 1.0$

Eingabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 322/360 = 0.895$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B50R  
 LCH\*Ma: 35 72 322  
 olv\*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	56.71	-0.23	2.14
LAB*LABa	56.71	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab\*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	8.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

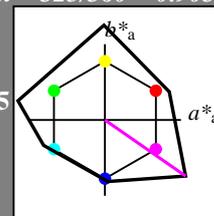
$n^* = 1.0$

Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 325/360 = 0.903$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B50R  
 LCH\*Ma: 44 129 325  
 olv\*Ma: 1.0 0.0 1.0

Dreiecks-Helligkeit  $t^*$



NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab\*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	1.0	0.5	1.0	(1.0)
cmyn3*	0.0	0.5	0.0	(0.0)
olvi4*	1.0	0.5	1.0	1.0
cmyn4*	0.0	0.5	0.0	0.0

standard and adapted CIELAB

LAB*LAB	65.17	28.18	-19.4
LAB*LABa	65.17	28.58	-22.12
LAB*TCHa	75.0	36.15	322.25

relative CIELAB lab\*

lab*lab	0.609	0.395	-0.305
lab*tch	0.75	0.5	0.895
lab*nch	0.0	0.5	0.895

relative Natural Colour (NC)

lab*lrj	0.609	0.324	-0.38
lab*tce	0.75	0.5	0.862
lab*nce	0.0	0.5	b44r

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.5	(1.0)
cmyn3*	0.5	1.0	0.5	(0.0)
olvi4*	1.0	0.5	1.0	0.5
cmyn4*	0.0	0.5	0.0	0.5

standard and adapted CIELAB

LAB*LAB	26.48	28.92	-22.01
LAB*LABa	26.48	28.58	-22.12
LAB*TCHa	25.01	36.15	322.25

relative CIELAB lab\*

lab*lab	0.109	0.395	-0.305
lab*tch	0.25	0.5	0.895
lab*nch	0.5	0.5	0.895

relative Natural Colour (NC)

lab*lrj	0.109	0.324	-0.38
lab*tce	0.25	0.5	0.862
lab*nce	0.5	0.5	b44r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	0.0	1.0	(1.0)
cmyn3*	0.0	1.0	0.0	(0.0)
olvi4*	1.0	0.0	1.0	1.0
cmyn4*	0.0	1.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	34.95	57.34	-43.57
LAB*LABa	34.95	57.16	-44.25
LAB*TCHa	50.0	72.29	322.25

relative CIELAB lab\*

lab*lab	0.219	0.791	-0.611
lab*tch	0.5	1.0	0.895
lab*nch	0.0	1.0	0.895

relative Natural Colour (NC)

lab*lrj	0.219	0.648	-0.76
lab*tce	0.5	1.0	0.862
lab*nce	0.0	1.0	b44r

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

relative Buntheit  $c^*$

relative Inform. Technology (IT)

olvi3*	1.0	0.5	1.0	(1.0)
cmyn3*	0.0	0.5	0.0	(0.0)
olvi4*	1.0	0.5	1.0	1.0
cmyn4*	0.0	0.5	0.0	0.0

standard and adapted CIELAB

LAB*LAB	69.73	53.06	-36.95
LAB*LABa	69.73	53.03	-36.95
LAB*TCHa	75.0	64.65	325.12

relative CIELAB lab\*

lab*lab	0.696	0.41	-0.285
lab*tch	0.75	0.5	0.903
lab*nch	0.0	0.5	0.903

relative Natural Colour (NC)

lab*lrj	0.696	0.336	-0.369
lab*tce	0.75	0.5	0.867
lab*nce	0.0	0.5	b46r

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.5	(1.0)
cmyn3*	0.5	1.0	0.5	(0.0)
olvi4*	1.0	0.5	1.0	0.5
cmyn4*	0.0	0.5	0.0	0.5

standard and adapted CIELAB

LAB*LAB	27.53	53.1	-36.94
LAB*LABa	27.53	53.03	-36.95
LAB*TCHa	25.01	64.65	325.12

relative CIELAB lab\*

lab*lab	0.196	0.41	-0.285
lab*tch	0.25	0.5	0.903
lab*nch	0.5	0.5	0.903

relative Natural Colour (NC)

lab*lrj	0.196	0.336	-0.369
lab*tce	0.25	0.5	0.867
lab*nce	0.5	0.5	b46r

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

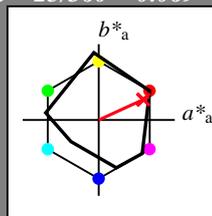
relative Buntheit  $c^*$

Eingabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 25/360 = 0.069$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton R  
 LCH\*Ma: 48 73 25  
 olv\*Ma: 1.0 0.0 0.1

Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	56.71	-0.23	2.14
LAB*LABa	56.71	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab\*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

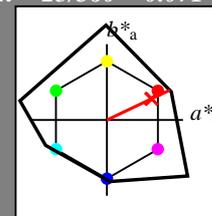
$n^* = 1.0$

Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 25/360 = 0.071$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton R  
 LCH\*Ma: 48 91 25  
 olv\*Ma: 1.0 0.02 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.0	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab\*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

$n^* = 1.0$

relative Inform. Technology (IT)

olvi3*	1.0	0.5	0.548	(1.0)
cmyn3*	0.0	0.5	0.452	(0.0)
olvi4*	1.0	0.5	0.549	1.0
cmyn4*	0.0	0.5	0.451	0.0

standard and adapted CIELAB

LAB*LAB	71.8	32.47	18.34
LAB*LABa	71.8	33.0	15.17
LAB*TCHa	75.0	36.32	24.7

relative CIELAB lab\*

lab*lab	0.695	0.454	0.209
lab*tch	0.75	0.5	0.069
lab*nch	0.0	0.5	0.069

relative Natural Colour (NC)

lab*lrj	0.695	0.5	0.0
lab*tce	0.75	0.5	1.0
lab*nce	0.0	0.5	b99r

relative Inform. Technology (IT)

olvi3*	0.5	0.0	0.048	(1.0)
cmyn3*	0.5	1.0	0.952	(0.0)
olvi4*	1.0	0.5	0.548	0.5
cmyn4*	0.0	0.5	0.452	0.5

standard and adapted CIELAB

LAB*LAB	33.11	33.21	15.74
LAB*LABa	33.11	33.0	15.18
LAB*TCHa	25.01	36.33	24.71

relative CIELAB lab\*

lab*lab	0.195	0.454	0.209
lab*tch	0.25	0.5	0.069
lab*nch	0.5	0.5	0.069

relative Natural Colour (NC)

lab*lrj	0.195	0.5	0.0
lab*tce	0.25	0.5	0.0
lab*nce	0.5	0.5	r00j

$n^* = 0.50$

relative Inform. Technology (IT)

olvi3*	1.0	0.0	0.097	(1.0)
cmyn3*	0.0	1.0	0.903	(0.0)
olvi4*	1.0	0.0	0.097	1.0
cmyn4*	0.0	1.0	0.903	0.0

standard and adapted CIELAB

LAB*LAB	48.21	65.92	31.93
LAB*LABa	48.21	66.0	30.36
LAB*TCHa	50.0	72.65	24.7

relative CIELAB lab\*

lab*lab	0.39	0.908	0.418
lab*tch	0.5	1.0	0.069
lab*nch	0.0	1.0	0.069

relative Natural Colour (NC)

lab*lrj	0.39	1.0	0.0
lab*tce	0.5	1.0	0.0
lab*nce	0.0	1.0	r00j

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	53.21	0.04	0.0
LAB*LABa	53.21	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab\*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$

relative Inform. Technology (IT)

olvi3*	1.0	0.512	0.5	(1.0)
cmyn3*	0.0	0.488	0.5	(0.0)
olvi4*	1.0	0.512	0.5	1.0
cmyn4*	0.0	0.488	0.5	0.0

standard and adapted CIELAB

LAB*LAB	71.81	41.31	19.68
LAB*LABa	71.81	41.28	19.68
LAB*TCHa	75.0	45.73	25.49

relative CIELAB lab\*

lab*lab	0.72	0.451	0.215
lab*tch	0.75	0.5	0.071
lab*nch	0.0	0.5	0.071

relative Natural Colour (NC)

lab*lrj	0.72	0.5	0.0
lab*tce	0.75	0.5	0.0
lab*nce	0.0	0.5	r00j

relative Inform. Technology (IT)

olvi3*	0.5	0.012	0.0	(1.0)
cmyn3*	0.5	0.988	1.0	(0.0)
olvi4*	1.0	0.512	0.5	0.5
cmyn4*	0.0	0.488	0.5	0.5

standard and adapted CIELAB

LAB*LAB	29.6	41.35	19.69
LAB*LABa	29.6	41.29	19.67
LAB*TCHa	25.01	45.73	25.47

relative CIELAB lab\*

lab*lab	0.22	0.451	0.215
lab*tch	0.25	0.5	0.071
lab*nch	0.5	0.5	0.071

relative Natural Colour (NC)

lab*lrj	0.22	0.5	0.0
lab*tce	0.25	0.5	1.0
lab*nce	0.5	0.5	b99r

$n^* = 0.50$

Schwarzheit  $n^*$

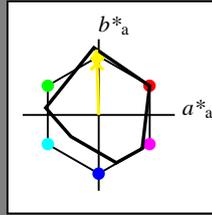
relative Buntheit  $c^*$

Eingabe: Farbmatisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 92/360 = 0.255$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton J  
 LCH\*Ma: 89 86 92  
 olv\*Ma: 1.0 0.95 0.0

Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	1.0	0.976	0.5	(1.0)
cmyn3*	0.0	0.024	0.5	(0.0)
olvi4*	1.0	0.976	0.5	1.0
cmyn4*	0.0	0.024	0.5	0.0

standard and adapted CIELAB

LAB*LAB	92.04	-2.3	47.67
LAB*LABa	92.04	-1.39	43.14
LAB*TCHa	75.0	43.16	91.85

relative CIELAB lab\*

lab*lab	0.957	-0.015	0.5
lab*tch	0.75	0.5	0.255
lab*nch	0.0	0.5	0.255

relative Natural Colour (NC)

lab*lrj	0.957	0.0	0.5
lab*tce	0.75	0.5	0.25
lab*nce	0.0	0.5	0.0g

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	56.71	-0.23	2.14
LAB*LABa	56.71	0.0	0.0
LAB*TCHa	50.0	0.01	-

relative CIELAB lab\*

lab*lab	0.5	0.0	0.0
lab*tch	0.5	0.0	-
lab*nch	0.5	0.0	-

relative Natural Colour (NC)

lab*lrj	0.5	0.0	0.0
lab*tce	0.5	0.0	-
lab*nce	0.5	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.476	0.0	(1.0)
cmyn3*	0.5	0.524	1.0	(0.0)
olvi4*	1.0	0.976	0.5	0.5
cmyn4*	0.0	0.024	0.5	0.5

standard and adapted CIELAB

LAB*LAB	53.35	-1.55	45.05
LAB*LABa	53.35	-1.38	43.13
LAB*TCHa	25.01	43.16	91.84

relative CIELAB lab\*

lab*lab	0.457	-0.015	0.5
lab*tch	0.25	0.5	0.255
lab*nch	0.5	0.5	0.255

relative Natural Colour (NC)

lab*lrj	0.457	0.0	0.5
lab*tce	0.25	0.5	0.25
lab*nce	0.5	0.5	0.0g

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	0.0
cmyn4*	0.0	0.0	0.0	1.0

standard and adapted CIELAB

LAB*LAB	18.02	0.5	-0.46
LAB*LABa	18.02	0.0	0.0
LAB*TCHa	8.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

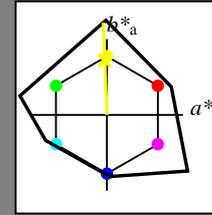
$n^* = 1.0$

Ausgabe: Farbmatisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 92/360 = 0.256$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton J  
 LCH\*Ma: 90 122 92  
 olv\*Ma: 0.97 1.0 0.0

Dreiecks-Helligkeit  $t^*$



%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.984	1.0	0.5	(1.0)
cmyn3*	0.016	0.0	0.5	(0.0)
olvi4*	0.984	1.0	0.5	1.0
cmyn4*	0.016	0.0	0.5	0.0

standard and adapted CIELAB

LAB*LAB	92.92	-2.44	60.89
LAB*LABa	92.92	-2.46	60.89
LAB*TCHa	75.0	60.94	92.32

relative CIELAB lab\*

lab*lab	0.971	-0.019	0.499
lab*tch	0.75	0.5	0.256
lab*nch	0.0	0.5	0.256

relative Natural Colour (NC)

lab*lrj	0.971	0.0	0.5
lab*tce	0.75	0.5	0.25
lab*nce	0.0	0.5	0.0g

relative Inform. Technology (IT)

olvi3*	0.5	0.5	0.5	(1.0)
cmyn3*	0.5	0.5	0.5	(0.0)
olvi4*	1.0	1.0	1.0	0.5
cmyn4*	0.0	0.0	0.0	0.5

standard and adapted CIELAB

LAB*LAB	88.68	-3.62	90.58
LAB*LABa	88.68	-2.77	86.27
LAB*TCHa	50.0	86.32	91.85

relative CIELAB lab\*

lab*lab	0.913	-0.031	0.999
lab*tch	0.5	1.0	0.255
lab*nch	0.0	1.0	0.255

relative Natural Colour (NC)

lab*lrj	0.913	0.0	1.0
lab*tce	0.5	1.0	0.25
lab*nce	0.0	1.0	0.0g

relative Inform. Technology (IT)

olvi3*	0.484	0.5	0.0	(1.0)
cmyn3*	0.516	0.5	1.0	(0.0)
olvi4*	0.984	1.0	0.5	0.5
cmyn4*	0.016	0.0	0.5	0.5

standard and adapted CIELAB

LAB*LAB	50.72	-2.42	60.89
LAB*LABa	50.72	-2.47	60.88
LAB*TCHa	25.01	60.93	92.33

relative CIELAB lab\*

lab*lab	0.471	-0.019	0.499
lab*tch	0.25	0.5	0.256
lab*nch	0.5	0.5	0.256

relative Natural Colour (NC)

lab*lrj	0.471	0.0	0.5
lab*tce	0.25	0.5	0.25
lab*nce	0.5	0.5	0.0g

relative Inform. Technology (IT)

olvi3*	0.967	1.0	0.0	(1.0)
cmyn3*	0.033	0.0	1.0	(0.0)
olvi4*	0.968	1.0	0.0	1.0
cmyn4*	0.032	0.0	1.0	0.0

standard and adapted CIELAB

LAB*LAB	90.45	-4.92	121.77
LAB*LABa	90.45	-4.93	121.77
LAB*TCHa	50.0	121.87	92.32

relative CIELAB lab\*

lab*lab	0.941	-0.04	0.999
lab*tch	0.5	1.0	0.256
lab*nch	0.0	1.0	0.256

relative Natural Colour (NC)

lab*lrj	0.941	0.0	1.0
lab*tce	0.5	1.0	0.25
lab*nce	0.0	1.0	0.0g

$n^* = 0.00$

$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$



$n^* = 0.00$

Schwarzheit  $n^*$

relative Buntheit  $c^*$



3 stufige Reihen für konstanten CIELAB Buntton 92/360 = 0.256 (rechts)

TG130-7, 3 stufige Reihen für konstanten CIELAB Buntton 92/360 = 0.255 (links)

BAM-Prüfvorlage TG13; Farbmatrik-Systeme MRS18 & NCS11

D65: 2 Koordinaten-Daten von 3stufigen Farbreihen für 10 Bunttonen

input: olv\* setrgbcolor

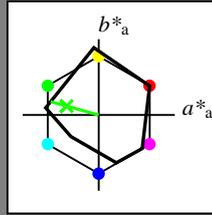
output: no change compared to input

BAM-Registrierung: 20060101-TG13/10Q/Q13G07NP.PS/.PDF BAM-Material: Code=rh4ta  
 Anwendung für Beurteilung und Messung von Drucker- oder Monitorssystemen  
 /TG13/ Form: 8/10, Serie: 1/1, Seite: 8  
 Seitenlung 8

Siehe ähnliche Dateien: http://www.ps.bam.de/TG13/  
 Technische Information: http://www.ps.bam.de/Version 2.1, io=1,1

Eingabe: Farbmatisches Reflexions-System MRS18  
 für Buntton  $h^* = lab^*h = 164/360 = 0.457$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G  
 LCH\*Ma: 56 66 164  
 olv\*Ma: 0.1 1.0 0.0  
 Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang  
 $u^*_{rel} = 91$   
 %Regularität  
 $g^*_{H,rel} = 41$   
 $g^*_{C,rel} = 52$

relative Inform. Technology (IT)  
 olvi3\* 1.0 1.0 1.0 (1.0)  
 cmyn3\* 0.0 0.0 0.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 1.0  
 cmyn4\* 0.0 0.0 0.0 0.0

standard and adapted CIELAB  
 LAB\*LAB 95.41 -0.97 4.75  
 LAB\*LABa 95.41 0.0 0.0  
 LAB\*TCHa 99.99 0.01 -

relative CIELAB lab\*  
 lab\*lab 1.0 0.0 0.0  
 lab\*tch 1.0 0.0 -  
 lab\*nch 0.0 0.0 -  
 relative Natural Colour (NC)  
 lab\*lrj 1.0 0.0 0.0  
 lab\*tce 1.0 0.0 -  
 lab\*nce 0.0 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.551 1.0 0.5 (1.0)  
 cmyn3\* 0.449 0.0 0.5 (0.0)  
 olvi4\* 0.551 1.0 0.5 1.0  
 cmyn4\* 0.449 0.0 0.5 0.0

standard and adapted CIELAB  
 LAB\*LAB 75.74 -32.2 12.22  
 LAB\*LABa 75.74 -31.6 8.79  
 LAB\*TCHa 75.0 32.81 164.46

relative CIELAB lab\*  
 lab\*lab 0.746 -0.481 0.134  
 lab\*tch 0.75 0.5 0.457  
 lab\*nch 0.0 0.5 0.457

relative Natural Colour (NC)  
 lab\*lrj 0.746 -0.499 0.0  
 lab\*tce 0.75 0.5 0.5  
 lab\*nce 0.0 0.5 0.99g

relative Inform. Technology (IT)  
 olvi3\* 0.5 0.5 0.5 (1.0)  
 cmyn3\* 0.5 0.5 0.5 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.5  
 cmyn4\* 0.0 0.0 0.0 0.5

standard and adapted CIELAB  
 LAB\*LAB 56.71 -0.23 2.14  
 LAB\*LABa 56.71 0.0 0.0  
 LAB\*TCHa 50.0 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.5 0.0 0.0  
 lab\*tch 0.5 0.0 -  
 lab\*nch 0.5 0.0 -  
 relative Natural Colour (NC)  
 lab\*lrj 0.5 0.0 0.0  
 lab\*tce 0.5 0.0 -  
 lab\*nce 0.5 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.051 0.5 0.0 (1.0)  
 cmyn3\* 0.949 0.5 1.0 (0.0)  
 olvi4\* 0.551 1.0 0.5 0.5  
 cmyn4\* 0.449 0.0 0.5 0.5

standard and adapted CIELAB  
 LAB\*LAB 37.04 -31.47 9.6  
 LAB\*LABa 37.04 -31.6 8.78  
 LAB\*TCHa 25.01 32.81 164.47

relative CIELAB lab\*  
 lab\*lab 0.246 -0.481 0.134  
 lab\*tch 0.25 0.5 0.457  
 lab\*nch 0.5 0.5 0.457

relative Natural Colour (NC)  
 lab\*lrj 0.246 -0.499 0.0  
 lab\*tce 0.25 0.5 0.5  
 lab\*nce 0.5 0.5 g00b

relative Inform. Technology (IT)  
 olvi3\* 0.0 0.0 0.0 (1.0)  
 cmyn3\* 1.0 1.0 1.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.0  
 cmyn4\* 0.0 0.0 0.0 1.0

standard and adapted CIELAB  
 LAB\*LAB 18.02 0.5 -0.46  
 LAB\*LABa 18.02 0.0 0.0  
 LAB\*TCHa 8.01 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.0 0.0 0.0  
 lab\*tch 0.0 0.0 -  
 lab\*nch 1.0 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 0.0 0.0 0.0  
 lab\*tce 0.0 0.0 -  
 lab\*nce 1.0 0.0 -

$n^* = 1.0$

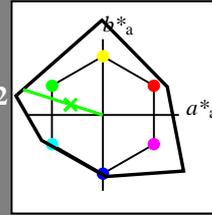
$n^* = 0.50$   
 relative Buntheit  $c^*$

Schwarzheit  $n^*$

$n^* = 0.00$

Ausgabe: Farbmatisches Reflexions-System NCS11  
 für Buntton  $h^* = lab^*h = 162/360 = 0.451$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton G  
 LCH\*Ma: 65 110 162  
 olv\*Ma: 0.08 1.0 0.0  
 Dreiecks-Helligkeit  $t^*$



NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang  
 $u^*_{rel} = 149$   
 %Regularität  
 $g^*_{H,rel} = 46$   
 $g^*_{C,rel} = 65$

relative Inform. Technology (IT)  
 olvi3\* 1.0 1.0 1.0 (1.0)  
 cmyn3\* 0.0 0.0 0.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 1.0  
 cmyn4\* 0.0 0.0 0.0 0.0

standard and adapted CIELAB  
 LAB\*LAB 95.41 0.0 -0.01  
 LAB\*LABa 95.41 0.0 0.0  
 LAB\*TCHa 99.99 0.01 -

relative CIELAB lab\*  
 lab\*lab 1.0 0.0 0.0  
 lab\*tch 1.0 0.0 -  
 lab\*nch 0.0 0.0 -  
 relative Natural Colour (NC)  
 lab\*lrj 1.0 0.0 0.0  
 lab\*tce 1.0 0.0 -  
 lab\*nce 0.0 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.541 1.0 0.5 (1.0)  
 cmyn3\* 0.459 0.0 0.5 (0.0)  
 olvi4\* 0.541 1.0 0.5 1.0  
 cmyn4\* 0.459 0.0 0.5 0.0

standard and adapted CIELAB  
 LAB\*LAB 80.4 -52.43 16.79  
 LAB\*LABa 80.4 -52.45 16.79  
 LAB\*TCHa 75.0 55.08 162.25

relative CIELAB lab\*  
 lab\*lab 0.822 -0.475 0.152  
 lab\*tch 0.75 0.5 0.451  
 lab\*nch 0.0 0.5 0.451

relative Natural Colour (NC)  
 lab\*lrj 0.822 -0.499 0.0  
 lab\*tce 0.75 0.5 0.5  
 lab\*nce 0.0 0.5 0.99g

relative Inform. Technology (IT)  
 olvi3\* 0.5 0.5 0.5 (1.0)  
 cmyn3\* 0.5 0.5 0.5 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.5  
 cmyn4\* 0.0 0.0 0.0 0.5

standard and adapted CIELAB  
 LAB\*LAB 53.21 0.04 0.0  
 LAB\*LABa 53.21 0.0 0.0  
 LAB\*TCHa 50.0 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.5 0.0 0.0  
 lab\*tch 0.5 0.0 -  
 lab\*nch 0.5 0.0 -  
 relative Natural Colour (NC)  
 lab\*lrj 0.5 0.0 0.0  
 lab\*tce 0.5 0.0 -  
 lab\*nce 0.5 0.0 -

relative Inform. Technology (IT)  
 olvi3\* 0.041 0.5 0.0 (1.0)  
 cmyn3\* 0.959 0.5 1.0 (0.0)  
 olvi4\* 0.541 1.0 0.5 0.5  
 cmyn4\* 0.459 0.0 0.5 0.5

standard and adapted CIELAB  
 LAB\*LAB 38.2 -52.41 16.8  
 LAB\*LABa 38.2 -52.46 16.78  
 LAB\*TCHa 25.01 55.09 162.27

relative CIELAB lab\*  
 lab\*lab 0.322 -0.475 0.152  
 lab\*tch 0.25 0.5 0.451  
 lab\*nch 0.5 0.5 0.451

relative Natural Colour (NC)  
 lab\*lrj 0.322 -0.499 0.0  
 lab\*tce 0.25 0.5 0.5  
 lab\*nce 0.5 0.5 g00b

relative Inform. Technology (IT)  
 olvi3\* 0.0 0.0 0.0 (1.0)  
 cmyn3\* 1.0 1.0 1.0 (0.0)  
 olvi4\* 1.0 1.0 1.0 0.0  
 cmyn4\* 0.0 0.0 0.0 1.0

standard and adapted CIELAB  
 LAB\*LAB 11.01 0.07 0.01  
 LAB\*LABa 11.01 0.0 0.0  
 LAB\*TCHa 0.01 0.01 -

relative CIELAB lab\*  
 lab\*lab 0.0 0.0 0.0  
 lab\*tch 0.0 0.0 -  
 lab\*nch 1.0 0.0 -

relative Natural Colour (NC)  
 lab\*lrj 0.0 0.0 0.0  
 lab\*tce 0.0 0.0 -  
 lab\*nce 1.0 0.0 -

$n^* = 0.50$   
 relative Buntheit  $c^*$

Schwarzheit  $n^*$

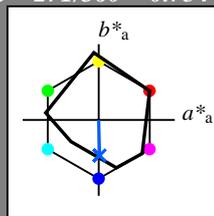
$n^* = 0.00$

Eingabe: Farbmétrisches Reflexions-System MRS18

für Buntton  $h^* = lab^*h = 271/360 = 0.754$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B  
 LCH\*Ma: 40 50 271  
 olv\*Ma: 0.0 0.37 1.0

Dreiecks-Helligkeit  $t^*$



MRS18; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	49.63	66.96	38.37	77.18	30
JMa	90.7	-6.36	88.75	88.98	94
GMa	52.11	-69.73	9.44	70.37	172
G50BMa	45.03	-36.57	-28.47	46.36	218
BMa	36.65	23.19	-63.05	67.18	290
B50RMa	34.94	57.17	-44.26	72.31	322
NMa	18.01	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.66	26.98	64.56	25
JCIE	81.26	-2.17	67.76	67.79	92
GCIE	52.23	-42.26	11.75	43.87	164
BCIE	30.57	1.15	-46.84	46.87	271

%Umfang

$u^*_{rel} = 91$

%Regularität

$g^*_{H,rel} = 41$

$g^*_{C,rel} = 52$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	-0.97	4.75
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.684	1.0	(1.0)
cmyn3*	0.5	0.316	0.0	(0.0)
olvi4*	0.5	0.684	1.0	1.0
cmyn4*	0.5	0.316	0.0	0.0

standard and adapted CIELAB

LAB*LAB	67.57	0.17	-22.28
LAB*LABa	67.57	0.61	-25.16
LAB*TCHa	75.0	25.18	271.4

relative CIELAB lab\*

lab*lab	0.64	0.012	-0.499
lab*tch	0.75	0.5	0.754
lab*nch	0.0	0.5	0.754

relative Natural Colour (NC)

lab*lrj	0.64	0.0	-0.499
lab*tce	0.75	0.5	0.75
lab*nce	0.0	0.5	g99b

relative Inform. Technology (IT)

olvi3*	0.0	0.367	1.0	(1.0)
cmyn3*	1.0	0.633	0.0	(0.0)
olvi4*	0.0	0.367	1.0	1.0
cmyn4*	1.0	0.633	0.0	0.0

standard and adapted CIELAB

LAB*LAB	39.73	1.32	-49.33
LAB*LABa	39.73	1.23	-50.34
LAB*TCHa	50.0	50.36	271.41

relative CIELAB lab\*

lab*lab	0.281	0.025	-0.998
lab*tch	0.5	1.0	0.754
lab*nch	0.0	1.0	0.754

relative Natural Colour (NC)

lab*lrj	0.281	0.0	-0.999
lab*tce	0.5	1.0	0.75
lab*nce	0.0	1.0	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.184	0.5	(1.0)
cmyn3*	1.0	0.816	0.5	(0.0)
olvi4*	0.5	0.684	1.0	0.5
cmyn4*	0.5	0.316	0.0	0.5

standard and adapted CIELAB

LAB*LAB	28.87	0.92	-24.9
LAB*LABa	28.87	0.62	-25.16
LAB*TCHa	25.01	25.18	271.41

relative CIELAB lab\*

lab*lab	0.14	0.012	-0.499
lab*tch	0.25	0.5	0.754
lab*nch	0.5	0.5	0.754

relative Natural Colour (NC)

lab*lrj	0.14	0.0	-0.499
lab*tce	0.25	0.5	0.75
lab*nce	0.5	0.5	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

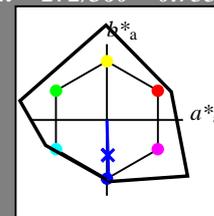
lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

Ausgabe: Farbmétrisches Reflexions-System NCS11

für Buntton  $h^* = lab^*h = 272/360 = 0.755$   
 $lab^*tch$  und  $lab^*nch$

D65: Buntton B  
 LCH\*Ma: 49 80 272  
 olv\*Ma: 0.0 0.02 1.0

Dreiecks-Helligkeit  $t^*$



NCS11; adaptierte CIELAB-Daten

	$L^*=L^*_a$	$a^*_a$	$b^*_a$	$C^*_{ab,a}$	$h^*_{ab,a}$
RMa	47.15	84.64	37.25	92.48	24
JMa	91.37	-1.27	125.03	125.03	91
GMa	63.07	-114.28	25.35	117.06	167
G50BMa	59.47	-80.6	-33.45	87.28	203
BMa	49.01	3.65	-81.19	81.28	273
B50RMa	44.06	106.09	-73.93	129.32	325
NMa	10.99	0.0	0.0	0.0	0
WMa	95.41	0.0	0.0	0.0	0
RCIE	39.92	58.69	27.98	65.01	25
JCIE	81.26	-2.9	71.56	71.62	92
GCIE	52.23	-42.45	13.59	44.59	162
BCIE	30.57	1.35	-46.48	46.51	272

%Umfang

$u^*_{rel} = 149$

%Regularität

$g^*_{H,rel} = 46$

$g^*_{C,rel} = 65$

relative Inform. Technology (IT)

olvi3*	1.0	1.0	1.0	(1.0)
cmyn3*	0.0	0.0	0.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	95.41	0.0	-0.01
LAB*LABa	95.41	0.0	0.0
LAB*TCHa	99.99	0.01	-

relative CIELAB lab\*

lab*lab	1.0	0.0	0.0
lab*tch	1.0	0.0	-
lab*nch	0.0	0.0	-

relative Natural Colour (NC)

lab*lrj	1.0	0.0	0.0
lab*tce	1.0	0.0	-
lab*nce	0.0	0.0	-

relative Inform. Technology (IT)

olvi3*	0.5	0.508	1.0	(1.0)
cmyn3*	0.5	0.492	0.0	(0.0)
olvi4*	0.5	0.508	1.0	1.0
cmyn4*	0.5	0.492	0.0	0.0

standard and adapted CIELAB

LAB*LAB	72.29	1.2	-40.21
LAB*LABa	72.29	1.17	-40.21
LAB*TCHa	75.0	40.24	271.66

relative CIELAB lab\*

lab*lab	0.726	0.014	-0.499
lab*tch	0.75	0.5	0.755
lab*nch	0.0	0.5	0.755

relative Natural Colour (NC)

lab*lrj	0.726	0.0	-0.499
lab*tce	0.75	0.5	0.75
lab*nce	0.0	0.5	g99b

relative Inform. Technology (IT)

olvi3*	0.0	0.016	1.0	(1.0)
cmyn3*	1.0	0.984	0.0	(0.0)
olvi4*	0.0	0.016	1.0	1.0
cmyn4*	1.0	0.984	0.0	0.0

standard and adapted CIELAB

LAB*LAB	49.18	2.39	-80.42
LAB*LABa	49.18	2.34	-80.43
LAB*TCHa	50.0	80.48	271.67

relative CIELAB lab\*

lab*lab	0.452	0.029	-0.998
lab*tch	0.5	1.0	0.755
lab*nch	0.0	1.0	0.755

relative Natural Colour (NC)

lab*lrj	0.452	0.0	-0.999
lab*tce	0.5	1.0	0.75
lab*nce	0.0	1.0	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.008	0.5	(1.0)
cmyn3*	1.0	0.992	0.5	(0.0)
olvi4*	0.5	0.508	1.0	0.5
cmyn4*	0.5	0.492	0.0	0.5

standard and adapted CIELAB

LAB*LAB	30.09	1.24	-40.2
LAB*LABa	30.09	1.18	-40.21
LAB*TCHa	25.01	40.24	271.67

relative CIELAB lab\*

lab*lab	0.226	0.015	-0.499
lab*tch	0.25	0.5	0.755
lab*nch	0.5	0.5	0.755

relative Natural Colour (NC)

lab*lrj	0.226	0.0	-0.499
lab*tce	0.25	0.5	0.75
lab*nce	0.5	0.5	b00r

relative Inform. Technology (IT)

olvi3*	0.0	0.0	0.0	(1.0)
cmyn3*	1.0	1.0	1.0	(0.0)
olvi4*	1.0	1.0	1.0	1.0
cmyn4*	0.0	0.0	0.0	0.0

standard and adapted CIELAB

LAB*LAB	11.01	0.07	0.01
LAB*LABa	11.01	0.0	0.0
LAB*TCHa	0.01	0.01	-

relative CIELAB lab\*

lab*lab	0.0	0.0	0.0
lab*tch	0.0	0.0	-
lab*nch	1.0	0.0	-

relative Natural Colour (NC)

lab*lrj	0.0	0.0	0.0
lab*tce	0.0	0.0	-
lab*nce	1.0	0.0	-

