

See original or copy: <http://web.me.com/klaus.richter/ME41/ME41LONP.PDF> /.PS  
 Technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

TUB registration: 20101101-ME41/ME41LONP.PDF /.PS  
 application for measurement of printer or monitor systems

TUB material: code=rh4ta

color mixture and color attributes of low and high color metrics			
	mode of color mixture		
	dichromatic	trichromatic	
<b>lower color- or valence metrics:</b>			
white value $W$	$V$	$V$	
black value $N$	$100 - Y$	$100 - O$	
chromatic value $C$	$Y - V$	$O - V$	
<b>higher color- or sensation metrics:</b>			
whiteness $W^*$	$V^*$	$V^*$	
blackness $N^*$	$100 - Y^*$	$100 - O^*$	
chromaticness $C^*$	$Y^* - V^*$	$O^* - V^*$	

ME410-3, BT2\_01

basic and mixed colors of standard color printing by DIN 16 539					
basic color or mixed color and name	CIE standard chromaticity		CIE standard tristimulus value		
	$x$	$y$	$X$	$Y$	$Z$
<i>three subtractive basic colors:</i>					
$C$ cyanblue	0,1553	0,1967	16,92	21,44	70,62
$M$ magentared	0,4675	0,2314	33,88	16,77	21,82
$Y$ yellow	0,4399	0,4925	68,13	76,28	10,48
<i>three subtractive mixed colors:</i>					
$O$ orangered	0,6152	0,3226	30,51	16,00	3,08
$L$ leafgreen	0,1958	0,5256	6,05	16,23	8,06
$V$ violetblue	0,1807	0,1009	4,86	2,72	19,33
$NLC$ (white)	0,3101	0,3162	98,07	100,00	118,22

ME411-3, BT5\_01

color threshold formula LABJNDS 1985 (JND=just noticeable difference)	
$\Delta E_{JND}^* = Y_0 [ (\Delta Y)^2 + (a_0 \Delta a'' \cdot Y)^2 + (b_0 \Delta b'' \cdot Y)^2 ]^{1/2} / (s + d Y^e)$	
$a = x/y \quad a_n = x_n/y_n \quad b = -0,4 z/y \quad b_n = -0,4 z_n/y_n$	
$a'' = a_n + (a - a_n) / (1 + 0,5  a - a_n ) \quad n = D65 \text{ or } A \text{ (surround)}$	
$b'' = b_n + (b - b_n) / (1 + 0,5  b - b_n )$	
$Y = (Y_1 + Y_2) / 2 \quad \Delta Y = Y_1 - Y_2 \quad \Delta a'' = a_1'' - a_2'' \quad \Delta b'' = b_1'' - b_2''$	
$s = 0,0170 \quad d = 0,0058 \quad e = 1,0$	
$a_0 = 1,0 \quad b_0 = 1,8 \quad Y_0 = 1,5 \quad \text{surround } D65$	
$a_0 = 1,0 \quad b_0 = 1,7 \quad Y_0 = 1,0 \quad \text{surround } A$	

ME410-7, BT4\_01

basic and mixed colors of standard color television by DIN 6169					
basic color or mixed color and name	CIE standard chromaticity		CIE standard tristimulus value		
	$x$	$y$	$X$	$Y$	$Z$
<i>three additive basic colors:</i>					
$O$ orangered	0,6400	0,3300	43,03	22,19	2,02
$L$ leafgreen	0,2900	0,6000	34,16	70,68	12,96
$V$ violetblue	0,1415	0,0482	17,82	7,13	93,87
<i>three additive mixed colors:</i>					
$C$ cyanblue	0,2197	0,3288	51,98	77,81	106,83
$M$ magentared	0,3270	0,1576	60,85	29,32	95,89
$Y$ yellow	0,4172	0,5019	77,19	92,87	14,98
$D65$ (white)	0,3127	0,3291	95,01	100,00	108,85

ME411-7, BT5\_02