

$XYZ_{W,10} = 101.75, 100.0, 64.44$

$A_{2,10} = 2.5 (a_{2,10} - a_{2,n,10}) Y_{10}$

$B_{2,10} = 2.5 B_c (b_{2,10} - b_{2,n,10}) Y_{10}$

$a_{2,10} = a_{20} [(x_{10} - x_c) / y_{10}]$

$b_{2,10} = b_{20} [z_{10} / y_{10}]$

$a_{20} = 1, b_{20} = -0.4$

$x_c = 0.110, B_c = 1.300$

$C_{AB,2,10} = [A_{2,10}^2 + B_{2,10}^2]^{1/2}$

6 Ostwald colours (o)

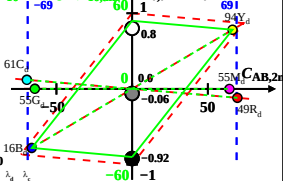
of maximum (m)  $C_{AB,10}$  in

linear colour space ( $C_{AB,2,10}, Y_{10}$ )

Illumin. P40,  $Y_{W,10} = 100, Y_{N,10} = 10$

| Name  | Range   | $X_{d,10}$ | $Y_{d,10}$ | $Z_{d,10}$ | $x_{d,10}$ | $y_{d,10}$ | $\lambda_d$ | $\lambda_c$ |
|-------|---------|------------|------------|------------|------------|------------|-------------|-------------|
| $R_d$ | 569_775 | 74.46      | 49.11      | 6.5        | 0.5724     | 0.3775     | 597         | 487         |
| $Y_d$ | 492_775 | 92.34      | 94.1       | 9.87       | 0.4703     | 0.4793     | 572         | 465         |
| $G_d$ | 492_569 | 28.16      | 55.09      | 9.87       | 0.3024     | 0.5915     | 535         | 535c        |
| $C_d$ | 380_569 | 37.57      | 60.99      | 64.45      | 0.2304     | 0.3741     | 487         | 597         |
| $B_d$ | 380_492 | 19.69      | 16.0       | 61.08      | 0.2034     | 0.1653     | 465         | 572         |
| $M_d$ | 569_492 | 83.87      | 55.01      | 61.08      | 0.4194     | 0.2751     | 535c        | 535         |
| $W_d$ | 380_775 | 101.75     | 100.0      | 64.44      | 0.3822     | 0.3756     | 100%        |             |
| $N_d$ | 380_775 | 10.17      | 10.0       | 6.44       | 0.3822     | 0.3756     | 10%         |             |
| $Z_d$ | 380_775 | 18.31      | 18.0       | 11.6       | 0.3822     | 0.3756     | 18%         |             |

$L^*_{10} = 60 \log[f(Y_{10,an})]$   $Y_{10,an} = [Y_{10} - 50] / 50$



$f(Y_{10,an}) = \pm [1 + 10 |Y_{10,an}|^n]$

$n$  increases to 1 for:

1. decreasing of the contrast  $C$
2. adjacent compared to separate colours.

Parameter:  
 $Y_{10}$  & Name  
 Illuminant P40  
 $Y_{W,10} = 100, Y_{N,10} = 10$