

| Colorimetric data of six chromatic basic colours $X$ = RYGBM of a device (d) or elementary (e) system |                    |                                                                                    |                         |                                                                                                                              |                                                                                                          |
|-------------------------------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| colorimetric name                                                                                     | family             | family member                                                                      | coordinate kind         | coordinate (compare CIELAB $L^*, C_{ab}^*, h_{ab}, a^*, b^*$ )                                                               | coordinate name                                                                                          |
| standard CIELAB                                                                                       | LAB*               | LAB*LCH <sub>X</sub><br>or<br>LAB*LAB <sub>X</sub>                                 | cylindrical or kartesic | $L_X^* = LAB^*L_X^*$<br>$C_X^* = LAB^*C_{ab,M}^*$<br>$H_X^* = LAB^*h_{ab,M}$<br>$A_X^* = LAB^*a_X^*$<br>$B_X^* = LAB^*b_X^*$ | lightness chroma<br>hue angle<br>red green chroma<br>yellow blue chroma                                  |
| adapted CIELAB (a)                                                                                    | LAB <sub>a</sub> * | LAB <sub>a</sub> *LCH <sub>a,X</sub><br>or<br>LAB <sub>a</sub> *LAB <sub>a,X</sub> | cylindrical or kartesic | $L_{a,X}^* = LAB_a^*L_{a,X}^*$<br>$C_{a,X}^* = LAB_a^*C_{a,X}^*$<br>$H_{a,X}^* = LAB_a^*H_{a,X}^*$                           | adapted lightness (= $L_X^*$ )<br>adapted chroma<br>adapted hue angle<br>( $0 \leq H_{a,X}^* \leq 360$ ) |
| relative CIELAB (r)                                                                                   | lab*               | lab*lch <sub>X</sub><br>or<br>lab*lab <sub>X</sub>                                 | cylindrical or kartesic | $l_X^* = lab^*l_X^*$<br>$c_X^* = lab^*c_X^*$<br>$h_X^* = lab^*h_X^*$                                                         | relative lightness<br>relative chroma<br>relative hue<br>( $0,00 \leq h_X^* \leq 1,00$ )                 |

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| Colorimetric data of maximum colours $M$ of a device (d) or elementary (e) system |                    |                                                                                    |                         |                                                                                                                              |                                                                                                          |
|-----------------------------------------------------------------------------------|--------------------|------------------------------------------------------------------------------------|-------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| colorimetric name                                                                 | family             | family member                                                                      | coordinate kind         | coordinate (compare CIELAB $L^*, C_{ab}^*, h_{ab}, a^*, b^*$ )                                                               | coordinate name                                                                                          |
| standard CIELAB                                                                   | LAB*               | LAB*LCH <sub>M</sub><br>or<br>LAB*LAB <sub>M</sub>                                 | cylindrical or kartesic | $L_M^* = LAB^*L_M^*$<br>$C_M^* = LAB^*C_{ab,M}^*$<br>$H_M^* = LAB^*h_{ab,M}$<br>$A_M^* = LAB^*a_M^*$<br>$B_M^* = LAB^*b_M^*$ | lightness chroma<br>hue angle<br>red green chroma<br>yellow blue chroma                                  |
| adapted CIELAB (a)                                                                | LAB <sub>a</sub> * | LAB <sub>a</sub> *LCH <sub>a,M</sub><br>or<br>LAB <sub>a</sub> *LAB <sub>a,M</sub> | cylindrical or kartesic | $L_{a,M}^* = LAB_a^*L_{a,M}^*$<br>$C_{a,M}^* = LAB_a^*C_{a,M}^*$<br>$H_{a,M}^* = LAB_a^*H_{a,M}^*$                           | adapted lightness (= $L_M^*$ )<br>adapted chroma<br>adapted hue angle<br>( $0 \leq H_{a,M}^* \leq 360$ ) |
| relative CIELAB (r)                                                               | lab*               | lab*lch <sub>M</sub><br>or<br>lab*lab <sub>M</sub>                                 | cylindrical or kartesic | $l_M^* = lab^*l_M^*$<br>$c_M^* = lab^*c_M^*$<br>$h_M^* = lab^*h_M^*$                                                         | relative lightness<br>relative chroma<br>relative hue<br>( $0,00 \leq h_M^* \leq 1,00$ )                 |

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| Colorimetric standard CIELAB data and linearly related adapted and relative CIELAB data |                    |                                                                                                                                               |                                                                                                 |                                                                                                                                                              |                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| colorimetric name                                                                       | family             | family member                                                                                                                                 | coordinate kind                                                                                 | coordinate (compare CIELAB $L^*, C_{ab}^*, h_{ab}, a^*, b^*$ )                                                                                               | coordinate name                                                                                                                                                                                                 |
| standard CIELAB                                                                         | LAB*               | LAB*LCH <sub>a</sub><br>or<br>LAB*LAB <sub>a</sub>                                                                                            | cylindrical or kartesic                                                                         | $L^* = LAB^*L^*$<br>$C^* = LAB^*C_{ab}^*$<br>$H^* = LAB^*h_{ab}$<br>$A^* = LAB^*a^*$<br>$B^* = LAB^*b^*$                                                     | lightness chroma<br>hue angle<br>red green chroma<br>yellow blue chroma                                                                                                                                         |
| adapted CIELAB (a)                                                                      | LAB <sub>a</sub> * | LAB <sub>a</sub> *LCH <sub>a</sub><br>or<br>LAB <sub>a</sub> *LAB <sub>a</sub>                                                                | cylindrical or kartesic                                                                         | $L_a^* = LAB_a^*L_a^*$<br>$C_a^* = LAB_a^*C_a^*$<br>$H_a^* = LAB_a^*H_a^*$                                                                                   | adapted lightness (= $L^*$ )<br>adapted chroma<br>adapted hue angle<br>( $0 \leq H_a^* \leq 360$ )                                                                                                              |
| relative CIELAB (r)                                                                     | lab*               | lab*lch <sub>a</sub><br>or<br>lab*lab <sub>a</sub><br>or<br>lab*ch <sub>a</sub><br>or<br>lab*ab <sub>a</sub>                                  | cylindrical<br>kartesic<br>cylindrical<br>kartesic                                              | $l^* = lab^*l^*$<br>$c^* = lab^*c^*$<br>$h^* = lab^*h^*$<br>$a^* = lab^*a^*$<br>$b^* = lab^*b^*$<br>$t^* = lab^*t^*$                                         | relative lightness<br>relative chroma<br>relative hue<br>relative a-red green chroma<br>relative b-yellow blue chroma<br>relative triangle lightness                                                            |
|                                                                                         |                    | lab*nch <sub>a</sub><br>or<br>lab*nice <sub>a</sub><br>or<br>lab*ncu <sub>a</sub><br>or<br>lab*tce <sub>a</sub><br>or<br>lab*try <sub>a</sub> | triangle-cylindrical<br>triangle-cylindrical<br>triangle-cylindrical<br>cylindrical<br>kartesic | $n^* = lab^*n^*$<br>$c^* = lab^*c^*$<br>$h^* = lab^*h^*$<br>$e^* = lab^*e^*$<br>$u^* = lab^*u^*$<br>$r^* = lab^*r^*$<br>$y^* = lab^*y^*$<br>$t^* = lab^*t^*$ | relative blackness<br>relative chroma<br>relative hue<br>relative elementary hue text<br>relative elementary hue<br>relative r-red green chroma<br>relative j-yellow blue chroma<br>relative triangle lightness |
|                                                                                         |                    | lab*rgb <sub>d</sub>                                                                                                                          | kartesic                                                                                        | $r_d^* = lab^*r_d^*$<br>$g_d^* = lab^*g_d^*$<br>$b_d^* = lab^*b_d^*$                                                                                         | relative device red<br>relative device green<br>relative device blue                                                                                                                                            |
|                                                                                         |                    | lab*cm <sub>y</sub> <sub>d</sub>                                                                                                              | kartesic                                                                                        | $c_d^* = lab^*c_d^*$<br>$m_d^* = lab^*m_d^*$<br>$y_d^* = lab^*y_d^*$                                                                                         | relative device cyan<br>relative device magenta<br>relative device yellow                                                                                                                                       |
|                                                                                         |                    | lab*rgb <sub>e</sub>                                                                                                                          | kartesic                                                                                        | $r_e^* = lab^*r_e^*$<br>$g_e^* = lab^*g_e^*$<br>$b_e^* = lab^*b_e^*$                                                                                         | relative elementary red<br>relative elementary green<br>relative elementary blue                                                                                                                                |
|                                                                                         |                    | lab*cm <sub>y</sub> <sub>e</sub>                                                                                                              | kartesic                                                                                        | $c_e^* = lab^*c_e^*$<br>$m_e^* = lab^*m_e^*$<br>$y_e^* = lab^*y_e^*$                                                                                         | relative elementary cyan<br>relative elementary magenta<br>relative elementary yellow                                                                                                                           |

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TUB-test chart SN58; Colour coordinates DIN 33872-1  
Basic and maximum colours, and colorimetric data

input: w/rgb/cmyk -> w/rgb/cmyk-  
output: no change compared