

User friendly colorimetric colour notation icu^* or ice^* and linear relation to the relative rgb^* colour data

i^* relative brilliantness

c^* relative chroma

u^* elementary (unique) hue text

e^* elementary hue number

E^* elementary hue angle

$$i^* = 1$$

$$c^* = 0$$

White W

5 steps

Chromatic

$$i^* = 0,75$$

5 steps

5 steps

$$i^* = 1$$

$$c^* = 1$$

Black N

$$i^* = 0$$

$$c^* = 0$$

relative chroma c^*

$$c^* = 0,50$$

example for colour notation:

$$icu^* = 0,75 \ 0,50 \ R25J$$

or

$$ice^* = 0,75 \ 0,50 \ 0,0625 (=0,25/4)$$

relative opponent (r^*, j^*) chroma

$$u^*_J = J00G \ \blacktriangle j^*_r$$

$$e^*_J = 0,25$$

$$u^*_G = G00B$$

$$e^*_G = 0,50$$

$$u^*_B = B00R$$

$$e^*_B = 0,75$$

$$u^* = R25J$$

$$e^* = 0,0625$$

$$u^*_R = R00J$$

$$e^*_R = 0,00$$

relative trichromatic CIELAB (a^*, b^*) chroma

$$rgb^*_J = 1 \ 1 \ 0$$

$$h_{ab,J} = 92 \text{ degree}$$

$$rgb^*_X = 1 \ 0,25 \ 0$$

$$h_{ab,X} = 42 \text{ degree}$$

$$= (25 + 0,25 * 67) \text{ degree}$$

$$rgb^*_G = 0 \ 1 \ 0$$

$$h_{ab,G} = 162 \text{ degree}$$

$$rgb^*_R = 1 \ 0 \ 0$$

$$h_{ab,R} = 25 \text{ degree}$$

colour F:

$$rgb^* = 0,75 \ 0,375 \ 0,25$$

$$i^* = r^* = 0,75$$

$$c^* = r^* - b^* = 0,50$$

$$rgb^*_B = 0 \ 0 \ 1; \ h_{ab,B} = 272 \text{ degree}$$