

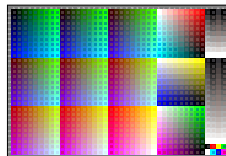
<http://farbe.li.tu-berlin.de/fem2/fem210n1.txt>; only vector graphic VG; start output
see separate images of this page: <http://farbe.li.tu-berlin.de/fem2/fem2.htm>

```
Postscript Color Parameter and 1-Minus-Relation (1MR) of rgb and cmyk
00 Color parameter setup; setrgbcolor; and setcmykcolor in Postscript
01 Setup with 0 < r <= 1 defines colors in the space DeviceGray
02 For 0 <= r <= 1 the color is black, for 0 < r the color is white.
03 For 0 <= c <= 1 a gray color is defined between black and white.
04 For 0 <= g <= 1 setrgbcolor with 0 <= r <= 1 defines colors in the space DeviceRGB
05 For 0 <= r <= 1 the color is black, for 0 <= r <= 1 the color is white.
06 For 0 <= c <= 1 magenta colors including greys are defined.
07 For 0 <= m <= 1 cyan colors including greys are defined.
08 For 0 <= y <= 1 yellow colors including greys are defined.
09 For 0 <= k <= 1 the color is black, for 0 <= c <= 1 the color is white.
10 For 0 <= c <= 1 and 0 <= k <= 1 magenta colors including greys are defined.
11 For 0 <= m <= 1 and 0 <= k <= 1 cyan colors including greys are defined.
12 For 0 <= y <= 1 and 0 <= k <= 1 yellow colors including greys are defined.
13 In this case the new parameters of setcmykcolor are (r-k, m-k, y-k, 1-k).
14 Lines 10 and 17 define the 1-Minus-Relation for the color values.
15 The 1-Minus-Relation for values of rgb and cmyk is: r1=1-r, g1=1-g, b1=1-b.
Lines 00 to 14: parameter of setup; setrgbcolor; and setcmykcolor;
Lines 00 to 15: 1-Minus-Relation between (r,c,m,y), (r,c,m,k), and (r,g,b)
end%%
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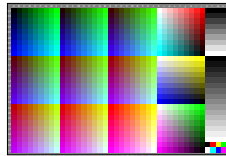
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Frame File PostScript Code for 1-Minus-Relation (1MR) to setrgbcolor
and line 00 to 05 for change of setup; to setcmykcolor
and line 06 to 11 for change of setcmykcolor to setrgbcolor
01 1MR-Header-1.0 2020-1.0, 1MR-001 for change to setrgbcolor
02 1MR-001 [MRD procedure 1MR-001] to setcmykcolor
03 MRD procedure of setup; and setcmykcolor to FFM_setcmykcolor
04
05 /setup [MRD procedure setup; to setcmykcolor
06   dup dup FFM_setcmykcolor
07   ] def
08 /setcmykcolor [MRD procedure setcmykcolor to setcmykcolor
09   /r r each def /g g each def /b b each def /m m each def
10   /y y each def /k k each def /r1 1-r each def /g1 1-g each def /b1 1-b each def
11   /c1 1-c each def /m1 1-m each def /k1 1-k each def /FFM_cmykcolor [FFM_cmykcolor] def
12   /FFM_r each def /FFM_g each def /FFM_b each def /FFM_m each def /FFM_y each def /FFM_k each def
13   /FFM_c1 each def /FFM_m1 each def /FFM_k1 each def /FFM_r1 each def /FFM_g1 each def /FFM_b1 each def
14   ] def
15 ] def
16 ] def
17 /setcmykcolor [MRD procedure 1MR-001] to setcmykcolor
18 /VTRdefine MRD procedure 1-Minus-Relation (1MR) to setcmykcolor
Remarks:
The FF_PS-code includes: FFM_setcmykcolor (setcmykcolor) bind def
Then setup; and setcmykcolor is changed to standard setcmykcolor
end%%
```

```
Frame File PostScript-code for 1-Minus-Relation (1MR) to cmyk setcmykcolor
01 1MR-Header-1.0 2020-1.0, 1MR-002 for change to cmyk setcmykcolor
02 1MR-002 [MRD procedure 1MR-002] to cmyk setcmykcolor
03 MRD procedure of setup; setcmykcolor; setup; setcmykcolor to cmyk setcmykcolor
04 /setup [MRD procedure setup; to cmyk setcmykcolor
05   /r r each def /g g each def /b b each def /m m each def
06   /y y each def /k k each def /r1 1-r each def /g1 1-g each def /b1 1-b each def
07   /c1 1-c each def /m1 1-m each def /k1 1-k each def /FFM_cmykcolor [FFM_cmykcolor] def
08   /FFM_r each def /FFM_g each def /FFM_b each def /FFM_m each def /FFM_y each def /FFM_k each def
09   /FFM_c1 each def /FFM_m1 each def /FFM_k1 each def /FFM_r1 each def /FFM_g1 each def /FFM_b1 each def
10   ] def
11 ] def
12 /setcmykcolor [MRD procedure setup; to cmyk setcmykcolor
13   /r r each def /g g each def /b b each def /m m each def
14   /y y each def /k k each def /r1 1-r each def /g1 1-g each def /b1 1-b each def
15   /c1 1-c each def /m1 1-m each def /k1 1-k each def /FFM_cmykcolor [FFM_cmykcolor] def
16   /FFM_r each def /FFM_g each def /FFM_b each def /FFM_m each def /FFM_y each def /FFM_k each def
17   /FFM_c1 each def /FFM_m1 each def /FFM_k1 each def /FFM_r1 each def /FFM_g1 each def /FFM_b1 each def
18   ] def
19 ] def
20 /VTRdefine MRD procedure 1MR-002 to cmyk setcmykcolor
Remarks:
line 04 to 10: change of setup; setcmykcolor to cmyk setcmykcolor
line 11 to 17: change of cmyk setcmykcolor to cmyk setcmykcolor
The FF_PS-code includes: FFM_setcmykcolor (setcmykcolor) bind def
end%%
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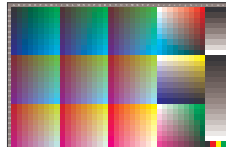
```
Frame File PostScript-code for 1-Minus-Relation (1MR) to cmyk setcmykcolor
01 1MR-Header-1.0 2020-1.0, 1MR-003 for change to cmyk setcmykcolor
02 1MR-003 [MRD procedure 1MR-003] to cmyk setcmykcolor
03 /MRD [MRD procedure of setup; setcmykcolor; setup; setcmykcolor to cmyk setcmykcolor
04   /r r each def /g g each def /b b each def /m m each def
05   /y y each def /k k each def /r1 1-r each def /g1 1-g each def /b1 1-b each def
06   /c1 1-c each def /m1 1-m each def /k1 1-k each def /FFM_cmykcolor [FFM_cmykcolor] def
07   /FFM_r each def /FFM_g each def /FFM_b each def /FFM_m each def /FFM_y each def /FFM_k each def
08   /FFM_c1 each def /FFM_m1 each def /FFM_k1 each def /FFM_r1 each def /FFM_g1 each def /FFM_b1 each def
09   ] def
10 /setup [MRD procedure setup; to cmyk setcmykcolor
11   /r r each def /g g each def /b b each def /m m each def
12   /y y each def /k k each def /r1 1-r each def /g1 1-g each def /b1 1-b each def
13   /c1 1-c each def /m1 1-m each def /k1 1-k each def /FFM_cmykcolor [FFM_cmykcolor] def
14   /FFM_r each def /FFM_g each def /FFM_b each def /FFM_m each def /FFM_y each def /FFM_k each def
15   /FFM_c1 each def /FFM_m1 each def /FFM_k1 each def /FFM_r1 each def /FFM_g1 each def /FFM_b1 each def
16   ] def
17 ] def
18 /VTRdefine MRD procedure 1MR-003 to cmyk setcmykcolor
Assumption: only cmyk setcmykcolor or cmyk setcmykcolor is in file
end%%
```



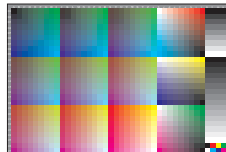
fem20-2a



fem20-4a



fem20-6a



fem20-8a

TUB-test chart fem2; Frame-File PS-code (FF_PS) Definition of PS-color spaces
DeviceGray, *DeviceRGB*, *DeviceCYMK* Output and steering of test chart AE49 of ISO 9241-306

see similar files of the whole series: <http://farbe.li.tu-berlin.de/frms.htm>
technical information: <http://farbe.li.tu-berlin.de> or <http://color.li.tu-berlin.de>

TUB registration: 20240201-fem2/fem210n1.txt /ps
application for evaluation and measurement of display or print output

TUB material: code=th4ta