

input: w/rab/cmyk -> (w/rab/cmyk)

WF340-7N

| %XS                                                                                                                                               | YS      | ZS      | X0      | Y0       | Z0      | X1      | Y1       | Z1       | DV      | dE'ab   | dE'CH | dE'94 | dE'CM | dE'00 | de'85    | no.      | Code | L*  | a*  | b*  | %   |     |
|---------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|----------|---------|---------|----------|----------|---------|---------|-------|-------|-------|-------|----------|----------|------|-----|-----|-----|-----|-----|
| %CIEXYZ*1000 data for iim=315 colours, CIE data XYZ0 and XYZ1 for delta_E'00=delta_E'CIEDE2000, PF=1, and visual DV=1 expected for this formula % |         |         |         |          |         |         |          |          |         |         |       |       |       |       |          |          |      |     |     |     |     |     |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0007907 | 0006235  | 0006789 | 0008275 | 0006556  | 0007138  | 0001000 | 01094   | 01179 | 01307 | 01002 | 01124 | 18010050 | 30       | 20   | 0   | 0   | 0   | 0   |     |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0012077 | 0011250  | 0012505 | 0011666 | 0012702  | 0001000  | 01019   | 01019   | 01077 | 01067 | 01002 | 01056 | 18010051 | 40       | 10   | 0   | 0   | 0   | 0   |     |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0029251 | 0028123  | 0030620 | 0030031 | 0028896  | 0031462  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18010052 | 60   | 10  | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0045341 | 0040749  | 0044367 | 0046525 | 0041871  | 0045589  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01009    | 18010053 | 70   | 20  | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0066456 | 0056681  | 0061714 | 0068160 | 0058241  | 0063413  | 0001000 | 01169   | 01169 | 01281 | 01000 | 01001 | 01016    | 18010054 | 80   | 30  | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004172 | 0002989  | 0004440 | 0003208 | 0001000  | 01168    | 01168   | 01168   | 01270 | 01688 | 01004 | 01004 | 01148    | 18010055 | 20   | 21  | 21  | 21  | 21  | 21  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0007287 | 0006235  | 0003766 | 0007636 | 0006556  | 0004003  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01124    | 18310056 | 30   | 14  | 14  | 14  | 14  | 14  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0011660 | 0011250  | 0009750 | 0012078 | 0011666  | 0010140  | 0001000 | 01019   | 01019 | 01077 | 01067 | 01002 | 01057    | 18310057 | 40   | 7   | 7   | 7   | 7   | 7   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0028496 | 0028123  | 0029526 | 0029263 | 0028896  | 0026679  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18310058 | 60   | 7   | 7   | 7   | 7   | 7   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0043332 | 0040749  | 0032845 | 0044481 | 0041871  | 0033846  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01010    | 18310059 | 70   | 14  | 14  | 14  | 14  | 14  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0005926 | 0006235  | 0002839 | 0006231 | 0006556  | 0003036  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01124    | 18410061 | 20   | 0   | 30  | 30  | 30  | 30  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0010692 | 0011250  | 0008824 | 0011088 | 0011666  | 0009188  | 0001000 | 01019   | 01019 | 01077 | 01067 | 01002 | 01057    | 18410062 | 30   | 0   | 10  | 10  | 10  | 10  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0026728 | 0028123  | 0024131 | 0027462 | 0028896  | 0024850  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18410064 | 60   | 0   | 10  | 10  | 10  | 10  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0038728 | 0040749  | 0028727 | 0039794 | 0041871  | 0029643  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01010    | 18410065 | 70   | 0   | 20  | 20  | 20  | 20  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0053869 | 0056681  | 0033872 | 0055352 | 0058241  | 0035013  | 0001000 | 01169   | 01169 | 01281 | 01000 | 01001 | 01017    | 18410066 | 80   | 0   | 30  | 30  | 30  | 30  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0001827 | 0002989  | 0000927 | 0001984 | 0003208  | 0001000  | 01100   | 01100   | 01179 | 01307 | 01002 | 01124 | 18510067 | 20       | -21  | 21  | 21  | 21  | 21  |     |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004746 | 0006235  | 0003766 | 0005010 | 0006556  | 0004003  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01124    | 18510068 | 30   | -14 | 14  | 14  | 14  | 14  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0009780 | 0011250  | 0009750 | 0011512 | 0011666  | 0010140  | 0001000 | 01019   | 01019 | 01077 | 01067 | 01002 | 01056    | 18510069 | 40   | -7  | 7   | 7   | 7   | 7   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0025034 | 0028123  | 0025926 | 0025738 | 0028896  | 0026679  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18510070 | 60   | -7  | 7   | 7   | 7   | 7   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0034462 | 0040749  | 0032845 | 0035449 | 0041871  | 0033846  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01010    | 18510071 | 70   | -14 | 14  | 14  | 14  | 14  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004602 | 0005668  | 0004089 | 0007337 | 0058241  | 0042190  | 0001000 | 01169   | 01169 | 01281 | 01000 | 01001 | 01016    | 18510072 | 80   | -21 | 21  | 21  | 21  | 21  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0001491 | 0002989  | 0003254 | 0001629 | 0003210  | 0003495  | 0001000 | 01163   | 01163 | 01274 | 01693 | 01002 | 01149    | 18610073 | 20   | -30 | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004307 | 0006235  | 0006789 | 0004555 | 0006556  | 0007138  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01123    | 18610074 | 30   | -20 | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0009418 | 0011250  | 0012250 | 0009781 | 0011666  | 0011270  | 0001000 | 01019   | 01019 | 01077 | 01067 | 01002 | 01056    | 18610075 | 40   | -10 | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0024354 | 0028123  | 0030620 | 0025045 | 0028896  | 0031462  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18610076 | 60   | -10 | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0032791 | 0040749  | 0044367 | 0033747 | 0041871  | 0045589  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01009    | 18610077 | 70   | -20 | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0001827 | 0002989  | 0000761 | 0001985 | 0003210  | 0008291  | 0001000 | 01163   | 01163 | 01274 | 01693 | 01002 | 01016    | 18610078 | 80   | -30 | 0   | 0   | 0   | 0   |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004746 | 0006235  | 0011107 | 0005010 | 0006556  | 0011590  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01127    | 18710080 | 20   | -21 | -21 | -21 | -21 | -21 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0009780 | 0011250  | 0015143 | 0011512 | 0011666  | 0015663  | 0001000 | 01019   | 01019 | 01077 | 01067 | 01002 | 01057    | 18710081 | 30   | -14 | -14 | -14 | -14 | -14 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0025034 | 0028123  | 0035850 | 0025738 | 0028896  | 0036784  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18710082 | 40   | -7  | -7  | -7  | -7  | -7  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0034462 | 0040749  | 0058312 | 0035449 | 0041871  | 0059776  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01010    | 18710083 | 60   | -14 | -14 | -14 | -14 | -14 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004602 | 0005668  | 0008614 | 0007337 | 0058241  | 0090773  | 0001000 | 01169   | 01169 | 01281 | 01000 | 01001 | 01018    | 18710084 | 80   | -21 | -21 | -21 | -21 | -21 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0005926 | 0006235  | 0013330 | 0006231 | 0006556  | 0013874  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01175    | 18810085 | 20   | 0   | -30 | -30 | -30 | -30 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0002840 | 00010692 | 0011250 | 0016464 | 0011088  | 0011666  | 0017014 | 0001000 | 01019 | 01077 | 01067 | 01002 | 01057    | 18810087 | 30   | 0   | -20 | -20 | -20 | -20 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0026728 | 0028123  | 0038179 | 0027462 | 0028896  | 0039153  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00999    | 18810088 | 40   | 0   | -10 | -10 | -10 | -10 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0038728 | 0040749  | 0064852 | 0039794 | 0041871  | 0066423  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01011    | 18810089 | 60   | 0   | -20 | -20 | -20 | -20 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0053869 | 0056681  | 0101721 | 0055352 | 0058241  | 0104087  | 0001000 | 01169   | 01169 | 01281 | 01000 | 01001 | 01020    | 18810090 | 80   | 0   | -30 | -30 | -30 | -30 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0004415 | 0002989  | 0006780 | 0004696 | 00063210 | 009170   | 0001000 | 01163   | 01163 | 01274 | 01693 | 01002 | 01162    | 18910091 | 20   | 25  | -17 | -17 | -17 | -17 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0007520 | 0006235  | 0010182 | 0007876 | 0006556  | 0010638  | 0001000 | 01094   | 01094 | 01179 | 01307 | 01002 | 01126    | 18910092 | 30   | 16  | -11 | -11 | -11 | -11 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0011818 | 0011250  | 0014565 | 0012241 | 0011666  | 0015072  | 0001000 | 01019   | 01019 | 01077 | 01067 | 01002 | 01057    | 18910093 | 40   | 8   | -6  | -6  | -6  | -6  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0028784 | 0028123  | 0034820 | 0029555 | 0028896  | 0035736  | 0001000 | 01027   | 01027 | 01087 | 00932 | 01004 | 00998    | 18910094 | 60   | 8   | -6  | -6  | -6  | -6  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0044093 | 0040749  | 0054582 | 0045255 | 0041871  | 0056899  | 0001000 | 01100   | 01100 | 01187 | 00966 | 01002 | 01010    | 18910095 | 70   | 16  | -11 | -11 | -11 | -11 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0064408 | 0056681  | 0083032 | 0065711 | 0058241  | 0085100  | 0001000 | 01169   | 01169 | 01281 | 01000 | 01001 | 01017    | 18910096 | 80   | 25  | -17 | -17 | -17 | -17 |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0018983 | 0027027  | 0008750 | 0019561 | 0027770  | 00099113 | 0001000 | 01019   | 01019 | 01076 | 00929 | 01004 | 00998    | 18510097 | 59   | -31 | 43  | 43  | 43  | 43  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0032840 | 0016794  | 0021991 | 0033580 | 0017277  | 0022585  | 0001000 | 00958   | 00958 | 00995 | 00925 | 01002 | 00999    | 18010098 | 48   | 75  | -7  | -7  | -7  | -7  |
| 0095040                                                                                                                                           | 0100000 | 0108880 | 0067406 | 0076303  | 0008887 | 0069305 | 0078401  | 0009408  | 0001000 | 01233   | 01233 | 01372 | 01034 | 01000 | 01020    | 18410099 | 90   | -11 | 96  | 96  | 96  | 96  |

TUB-test chart WE34; Colour differences  $\Delta E^*00, PF=1$   
colour difference formula CIEDE2000,PF

input: w/rgb/cmyk -> (w/rgb/cmyk)

-see similar files: <http://130.149.60.45/~farbmetrik/WE34/WE34.HTM>

technical information: <http://www.ps.bam.de> or <http://130.149.60.45/~farbmetrik>

<http://130.149.60.45/~farbmatrik/WE34/WE34L0NA.TXT> /PS; transfer output  
N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 3/8

input: w/rqb/cmyk -> (w/rqb/cmyk)

TUB-test chart WE34; Colour differences  $\Delta E^*_{00}$ , PF=1 colour difference formula CIEDE2000, PF

TUUB-test chart WE34; Colour differences

TUUB-test chart WE34; Colour differences





http://130.149.60.45/~farbmetrik/WE34/WE34L0NA.TXT /.PS; transfer output  
N: no 3D-linearization (OL) in file (F) or PS-startup (S), page 5/8

| %XS                                                                                                                                             | YS      | ZS      | X0      | Y0      | Z0      | X1      | Y1      | Z1      | DV      | dE'ab | dE'CH | dE'94 | dE'CM | dE'00    | de'85      | no.        | Code       | L*  | a*  | b* | % |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|-------|-------|-------|----------|------------|------------|------------|-----|-----|----|---|
| %CIEXYZ*1000 data for iim=315 colours, CIE data XYZ0 and XYZ1 for delta_E'00=delta_E'CIEDE2000, PF=1, and visual DV=1 expected for this formula |         |         |         |         |         |         |         |         |         |       |       |       |       |          |            |            |            |     |     |    | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0040749 | 0055482 | 0044400 | 0040750 | 0055483 | 0001000 | 01183   | 00925 | 00982 | 01001 | 00614 | 18900200 | (70209_RG) | 70         | 16         | -11 | %   |    |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0064048 | 0056681 | 0083032 | 0064562 | 0056682 | 0083033 | 0001000 | 01370 | 00998 | 01028 | 00998 | 00649    | 18900201   | (80309_RG) | 80         | 25  | -17 | %  |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0018983 | 0027027 | 0008750 | 0019243 | 0027029 | 0008752 | 0001000 | 01468 | 01033 | 00983 | 01001 | 00639    | 18500202   | (59534_RG) | 59         | -31 | 43  | %  |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0032840 | 0016794 | 0021991 | 0033583 | 0016797 | 0021993 | 0001000 | 02136 | 00989 | 01211 | 00990 | 00865    | 18000203   | (48759_RG) | 48         | 75  | -7  | %  |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0067406 | 0076303 | 0008887 | 0067948 | 0076304 | 0008889 | 0001000 | 01387 | 01387 | 00848 | 00919 | 01000    | 00824      | 18400204   | (90974_RG) | 90  | -11 | 96 | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0030111 | 0016794 | 0030548 | 0016796 | 0030549 | 0002704 | 0001000 | 01649 | 00900 | 01144 | 00995 | 00748    | 18300205   | (48832_RG) | 48         | 65  | 52  | %  |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0008752 | 0019268 | 0006587 | 0008998 | 0019270 | 0006590 | 0001000 | 01886 | 01886 | 01051 | 01111 | 01001    | 00847      | 18500206   | (51735_RG) | 51  | -63 | 37 | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0007247 | 0004746 | 0021471 | 0007363 | 0004747 | 0021473 | 0001000 | 01330 | 00906 | 00939 | 00998 | 00698    | 18900207   | (26548_RG) | 26         | 31  | -44 | %  |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0083272 | 0007618 | 0005398 | 0083439 | 0007618 | 0005399 | 0001000 | 00776 | 00765 | 00748 | 00991 | 01013    | 00441      | 18100208   | (95002_RG) | 95  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0095040 | 0100000 | 0108880 | 0095276 | 0100000 | 0108880 | 0001000 | 00776 | 00765 | 00748 | 00991 | 01013    | 00435      | 18100209   | (95002_RG) | 100 | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0001070 | 0001126 | 0001126 | 0001070 | 0001126 | 0001177 | 0001000 | 00958 | 00958 | 00995 | 01298 | 01000    | 00694      | 18140210   | (10009_BY) | 10  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0001813 | 0001908 | 0002078 | 0001814 | 0001909 | 0002008 | 0001000 | 00959 | 00959 | 00996 | 01299 | 01001    | 00739      | 18140211   | (15009_BY) | 15  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0002840 | 0002989 | 0003254 | 0002841 | 0002989 | 0003159 | 0001000 | 00959 | 00960 | 00997 | 01300 | 01001    | 00765      | 18140212   | (20009_BY) | 20  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0004196 | 0004415 | 0004415 | 0004197 | 0004416 | 0004684 | 0001000 | 00960 | 00960 | 00997 | 01300 | 01002    | 00777      | 18140213   | (25002_BY) | 25  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0005926 | 0006235 | 0006789 | 0005927 | 0006236 | 0006634 | 0001000 | 00960 | 00960 | 00997 | 01300 | 01002    | 00780      | 18140214   | (30002_BY) | 30  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0008076 | 0008498 | 0009253 | 0008077 | 0008499 | 0009062 | 0001000 | 00960 | 00960 | 00998 | 01301 | 01002    | 00777      | 18140215   | (35002_BY) | 35  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0010692 | 0011250 | 0012250 | 0010693 | 0011251 | 0012019 | 0001000 | 00960 | 00961 | 00998 | 01301 | 01003    | 00769      | 18140216   | (40002_BY) | 40  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0013820 | 0014541 | 0015833 | 0013821 | 0014542 | 0015559 | 0001000 | 00961 | 00961 | 00998 | 01301 | 01003    | 00759      | 18140217   | (45002_BY) | 45  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0017505 | 0018418 | 0020054 | 0017505 | 0018419 | 0019733 | 0001000 | 00961 | 00961 | 00998 | 01302 | 01003    | 00748      | 18140218   | (50002_BY) | 50  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0021792 | 0022929 | 0024966 | 0021793 | 0022930 | 0024594 | 0001000 | 00961 | 00961 | 00999 | 01302 | 01003    | 00737      | 18140219   | (55002_BY) | 55  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0026728 | 0028123 | 0030620 | 0026729 | 0028123 | 0030194 | 0001000 | 00961 | 00961 | 00999 | 01302 | 01003    | 00725      | 18140220   | (60002_BY) | 60  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0032358 | 0034047 | 0037070 | 0032359 | 0034047 | 0036586 | 0001000 | 00961 | 00961 | 00999 | 01302 | 01004    | 00713      | 18140221   | (65002_BY) | 65  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0038728 | 0040749 | 0044367 | 0038728 | 0040750 | 0043821 | 0001000 | 00961 | 00961 | 00999 | 01302 | 01004    | 00702      | 18140222   | (70002_BY) | 70  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0045883 | 0048278 | 0052565 | 0045884 | 0048278 | 0051953 | 0001000 | 00961 | 00961 | 00999 | 01302 | 01004    | 00691      | 18140223   | (75002_BY) | 75  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0053869 | 0056681 | 0061714 | 0053870 | 0056681 | 0061033 | 0001000 | 00961 | 00961 | 00999 | 01303 | 01004    | 00680      | 18140224   | (80002_BY) | 80  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0062733 | 0066007 | 0071368 | 0062733 | 0066007 | 0071113 | 0001000 | 00961 | 00962 | 00999 | 01303 | 01004    | 00660      | 18140226   | (90002_BY) | 90  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0072518 | 0076303 | 0083079 | 0072519 | 0076303 | 0082247 | 0001000 | 00961 | 00962 | 00999 | 01303 | 01004    | 00660      | 18140226   | (90002_BY) | 90  | 0   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0011110 | 0018418 | 0020054 | 0011111 | 0018419 | 0019553 | 0001000 | 01230 | 01230 | 00984 | 00900 | 00999    | 00874      | 18640227   | (50406_BY) | 50  | -40 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0011806 | 0018418 | 0020054 | 0011807 | 0018419 | 0019574 | 0001000 | 01201 | 01201 | 00987 | 00913 | 00999    | 00861      | 18640228   | (50356_BY) | 50  | -35 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0012530 | 0018418 | 0020054 | 0012531 | 0018419 | 0019592 | 0001000 | 01175 | 01175 | 00994 | 00934 | 00999    | 00849      | 18640229   | (50306_BY) | 50  | -30 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0013283 | 0018418 | 0020054 | 0013284 | 0018419 | 0019607 | 0001000 | 01154 | 01154 | 01009 | 00970 | 00999    | 00840      | 18640230   | (50256_BY) | 50  | -25 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0014066 | 0018418 | 0020054 | 0014067 | 0018419 | 0019620 | 0001000 | 01136 | 01136 | 01028 | 01022 | 00999    | 00832      | 18640231   | (50206_BY) | 50  | -20 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0014879 | 0018418 | 0020054 | 0014880 | 0018419 | 0019641 | 0001000 | 01105 | 01105 | 01035 | 01080 | 00999    | 00817      | 18640232   | (50156_BY) | 50  | -15 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0015723 | 0018418 | 0020054 | 0015723 | 0018419 | 0019670 | 0001000 | 01060 | 01060 | 01026 | 01141 | 00999    | 00796      | 18640233   | (50106_BY) | 50  | -10 | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0016598 | 0018418 | 0020054 | 0016598 | 0018419 | 0019704 | 0001000 | 01008 | 01008 | 01009 | 01166 | 00999    | 00772      | 18640234   | (50056_BY) | 50  | -5  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0018444 | 0018418 | 0020054 | 0018445 | 0018419 | 0019695 | 0001000 | 01022 | 01022 | 01026 | 01215 | 00997    | 00778      | 18040235   | (50052_BY) | 50  | 5   | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0019416 | 0018418 | 0020054 | 0019417 | 0018419 | 0019650 | 0001000 | 01091 | 01091 | 01064 | 01247 | 00997    | 00811      | 18040236   | (50102_BY) | 50  | 10  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0020422 | 0018418 | 0020054 | 0020423 | 0018419 | 0019610 | 0001000 | 01150 | 01150 | 01089 | 01203 | 00998    | 00838      | 18040237   | (50152_BY) | 50  | 15  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0021462 | 0018418 | 0020054 | 0021463 | 0018419 | 0019581 | 0001000 | 01190 | 01190 | 01091 | 01150 | 00999    | 00856      | 18040238   | (50202_BY) | 50  | 20  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0022537 | 0018418 | 0020054 | 0022538 | 0018419 | 0019564 | 0001000 | 01214 | 01214 | 01077 | 01097 | 00999    | 00867      | 18040239   | (50252_BY) | 50  | 25  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0023647 | 0018418 | 0020054 | 0023648 | 0018419 | 0019545 | 0001000 | 01240 | 01240 | 01066 | 01061 | 00999    | 00879      | 18040240   | (50302_BY) | 50  | 30  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0024793 | 0018418 | 0020054 | 0024794 | 0018419 | 0019520 | 0001000 | 01274 | 01274 | 01064 | 01043 | 01000    | 00894      | 18040241   | (50352_BY) | 50  | 35  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0025975 | 0018418 | 0020054 | 0025977 | 0018419 | 0019491 | 0001000 | 01311 | 01311 | 01068 | 01035 | 01000    | 00910      | 18040242   | (50402_BY) | 50  | 40  | 0  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0017505 | 0018418 | 0049507 | 0017506 | 0018420 | 0047912 | 0001000 | 01671 | 01671 | 00983 | 01082 | 01006    | 01087      | 18840243   | (5040      |     |     |    |   |



TUB registration: 20140801-WE34/WE34L0NA.TXT /PS

TUB material: code=rha4ta

application for measurement of display or printer output, no separation

| %XS                                                                                                                                             | YS      | ZS      | X0      | Y0      | Z0      | X1      | Y1      | Z1      | DV      | dE'ab | dE'CH | dE'94 | dE'CM | dE'00 | de'85    | no.        | Code       | L*  | a*  | b*  | % |
|-------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|-------|-------|-------|-------|----------|------------|------------|-----|-----|-----|---|
| %CIEXYZ*1000 data for iim=315 colours, CIE data XYZ0 and XYZ1 for delta_E'00=delta_E'CIEDE2000, PF=1, and visual DV=1 expected for this formula |         |         |         |         |         |         |         |         |         |       |       |       |       |       |          |            |            |     |     |     |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0053869 | 0056681 | 0101721 | 0053871 | 0056682 | 0099555 | 0001000 | 01515 | 00980 | 01054 | 01004 | 00932 | 18840300 | (80308_BY) | 80         | 0   | -30 | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0004415 | 0002989 | 0006780 | 0004416 | 0002990 | 0006523 | 0001000 | 01275 | 01022 | 01026 | 01000 | 00944 | 18940301 | (20309_BY) | 20         | 25  | -17 | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0007520 | 0006235 | 0010182 | 0007521 | 0006236 | 0009872 | 0001000 | 01213 | 01049 | 01102 | 00999 | 00930 | 18940302 | (30209_BY) | 30         | 16  | -11 | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0011818 | 0011250 | 0014565 | 0011819 | 0011251 | 0014233 | 0001000 | 01103 | 01036 | 01193 | 00997 | 00853 | 18940303 | (40109_BY) | 40         | 8   | -6  | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0028784 | 0028123 | 0034820 | 0028784 | 0028124 | 0034224 | 0001000 | 01103 | 01037 | 01193 | 00998 | 00801 | 18940304 | (60109_BY) | 60         | 8   | -6  | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0044093 | 0040749 | 0055482 | 0044094 | 0040750 | 0054516 | 0001000 | 01213 | 01050 | 01102 | 00999 | 00828 | 18940305 | (70209_BY) | 70         | 16  | -11 | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0064048 | 0056681 | 0083032 | 0064049 | 0056682 | 0081648 | 0001000 | 01274 | 01022 | 01025 | 01000 | 00830 | 18940306 | (80309_BY) | 80         | 25  | -17 | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0018983 | 0027027 | 0008750 | 0018985 | 0027029 | 0008278 | 0001000 | 01622 | 01029 | 01039 | 01002 | 00689 | 18540307 | (59534_BY) | 59         | -31 | 43  | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0032840 | 0016794 | 0021991 | 0032841 | 0016796 | 0021132 | 0001000 | 01604 | 01127 | 01074 | 01004 | 01059 | 18040308 | (48759_BY) | 48         | 75  | -7  | %   |   |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0067406 | 0076303 | 0008887 | 0067409 | 0076306 | 0007946 | 0001000 | 02379 | 02379 | 00995 | 01300 | 01011 | 00608    | 18440309   | (90974_BY) | 90  | -11 | 96  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0030111 | 0016794 | 0002703 | 0030112 | 0016795 | 0002512 | 0001000 | 01517 | 01517 | 00891 | 01135 | 01003 | 00569    | 18340310   | (48832_BY) | 48  | 65  | 52  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0008752 | 0019268 | 0006587 | 0008754 | 0019270 | 0006177 | 0001000 | 01669 | 01669 | 01112 | 01045 | 01003 | 00730    | 18540311   | (51735_BY) | 51  | -63 | 37  | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0007247 | 0004746 | 0021471 | 0007249 | 0004747 | 0020828 | 0001000 | 01380 | 01380 | 00832 | 00895 | 01001 | 00956    | 18940312   | (26548_BY) | 26  | 31  | -44 | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0083272 | 0087618 | 0095398 | 0083273 | 0087618 | 0094486 | 0001000 | 00961 | 00962 | 00999 | 01303 | 01004 | 00650    | 18140313   | (95002_BY) | 95  | 0   | 0   | % |
| 0095040                                                                                                                                         | 0100000 | 0108880 | 0095040 | 0100000 | 0108880 | 0095040 | 0100000 | 0107883 | 0001000 | 00961 | 00962 | 00999 | 01303 | 01004 | 00641    | 18140314   | (99002_BY) | 100 | 0   | 0   | % |

TUB registration: 20140801-WE34/WE34L0NA.TXT /PS  
application for measurement of display or printer output, no separation

TUB material: code=rha4ta

| %XS                                                                       | YS | ZS | X0 | Y0 | Z0 | X1 | Y1 | Z1 | DV | de'ab                                 | de'CH | de'94 | de'CM | de'00 | de'85 | no. | Code | L* | a*  | b*  | %     |
|---------------------------------------------------------------------------|----|----|----|----|----|----|----|----|----|---------------------------------------|-------|-------|-------|-------|-------|-----|------|----|-----|-----|-------|
| %sample no. 313 for delta_E*CIElch,PF=CIElAB=min %                        |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 95 | 0   | 0   | 0 %   |
| %sample no. 309 for delta_E*CIElch,PF=CIElAB=max %                        |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | -11 | 96  | 96 %  |
| %sample no. 309 for delta_E*CIE94,PF=min %                                |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | -11 | 96  | 96 %  |
| %sample no. 55 for delta_E*CIE94,PF=max %                                 |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 20 | 21  | 21  | 21 %  |
| %sample no. 309 for delta_E*CMC,PF(l:c=1:1)=min %                         |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | -11 | 96  | 96 %  |
| %sample no. 1 for delta_E*CMC,PF(l:c=1:1)=max %                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 15 | 0   | 0   | 0 %   |
| %sample no. 309 for delta_E*CIEDE2000,PF=min %                            |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | -11 | 96  | 96 %  |
| %sample no. 208 for delta_E*CIEDE2000,PF=max %                            |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 95 | 0   | 0   | 0 %   |
| %sample no. 309 for delta_E*LABJND,PF=min %                               |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | -11 | 96  | 96 %  |
| %sample no. 102 for delta_E*LABJND,PF=max %                               |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 26 | 31  | -44 | hab % |
| %sample no. 313 for delta_E*CIElch,PF=CIElAB=min %                        |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 95 | 0   | 0   | 0 %   |
| %sample no. 309 for delta_E*CIElch,PF=CIElAB=max %                        |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | 97  | 97  | 97 %  |
| %sample no. 309 for delta_E*CIE94,PF=min %                                |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | 97  | 97  | 97 %  |
| %sample no. 55 for delta_E*CIE94,PF=max %                                 |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 20 | 30  | 45  | 45 %  |
| %sample no. 309 for delta_E*CMC,PF(l:c=1:1)=min %                         |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | 97  | 97  | 97 %  |
| %sample no. 1 for delta_E*CMC,PF(l:c=1:1)=max %                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 15 | 0   | 357 | 357 % |
| %sample no. 309 for delta_E*CIEDE2000,PF=min %                            |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | 97  | 97  | 97 %  |
| %sample no. 208 for delta_E*CIEDE2000,PF=max %                            |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 95 | 0   | 0   | 0 %   |
| %sample no. 309 for delta_E*LABJND,PF=min %                               |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 90 | 97  | 97  | 97 %  |
| %sample no. 102 for delta_E*LABJND,PF=max %                               |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      | 26 | 54  | 305 | 305 % |
| %average colour difference of one experimental unit for 315 sample pairs: |    |    |    |    |    |    |    |    |    |                                       |       |       |       |       |       |     |      |    |     |     |       |
|                                                                           |    |    |    |    |    |    |    |    |    | 01270 01269 01204 01283 01231 00886 % |       |       |       |       |       |     |      |    |     |     |       |

input: w/rgb/cmyk -> (w/rgb/cmyk)

TUB-test chart WE34; Colour differences  $\Delta E^*00,PF=1$   
colour difference formula CIEDE2000,PF