

Liberty

Liberty
PIGMENTS



| PRODUCT C. I. NAME | PHYSICAL PROPERTIES | | | | | | | | | | | | | | | | | | | | FASTNESS PROPERTIES | | | | | | | | |
|-----------------------|---------------------|----------------------------|------------------|-----------------------|--------|---------|------|-------------------|-----------|-----------------|--------|-----------------------|--------|-------------------|------------|-------|--------|--------|-------------|-------------|---------------------|---------------|---------------|---------------------------------|---------------|-----------------------|-----------------------|-----------------------|---|
| | Specific Gravity | Oil Absorption (gm/100gms) | pH of 1% extract | Reagents (Scale:1to5) | | | | Solvents (1 to 5) | | | | Plasticizers (1 to 5) | | | | | | | | Light(1to8) | | Heat (1 to 5) | | | N. C. Lacquer | | | | |
| | | | | Water | 5% HCl | 5% NaOH | Lime | Ethanol | N-Butanol | N-Butyl Acetate | M.E.K. | White Spirit | Xylene | Mixed NC Solvents | Cellosolve | D.E.G | D.B.P. | D.O.P. | Linseed Oil | Oleic Acid | Soap | Paraffin Wax | Full Strength | Reduction 1:10 TIO ₂ | | 150°C (300°F) 20 min. | 180°C (355°F) 10 min. | 120°C (300°F) 30 min. | |
| Yellow 1 | 1.5 | 40 | 7 | 5 | 5 | 5 | 4 | 3 | 3 | 3 | 1 | 2 | 2 | 2 | 3 | 4 | 4 | 4 | 5 | 5 | 4 | 5 | 6 | 5 | 3 | 2 | 2 | 2 | |
| Yellow 3 | 1.6 | 35 | 7 | 5 | 5 | 5 | 5 | 3 | 3 | 2 | 1 | 3 | 1 | 1 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 7 | 5 | 4 | 2 | 2 | 3 | |
| Yellow 12 | 1.4 | 50 | 7 | 5 | 5 | 5 | 5 | 5 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 3 | 3 | 3 | 1 | |
| Yellow 13 | 1.3 | 45 | 7 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 5 | 5 | 4 | 4 | 4 | |
| Yellow 14 | 1.3 | 49 | 7 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 3 | 5 | 3 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 4 | 4 | 2 | |
| Yellow 17 | 1.3 | 60 | 7 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 5 | 5 | 4 | 4 | 2 | |
| Yellow 62 | 1.4 | 40 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 7 | 5 | 4 | 4 | 5 | 3 | |
| Yellow 65 | 1.4 | 45 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 3 | 5 | 5 | 4 | 3 | 7 | 5 | 4 | 4 | 5 | 3 | |
| Yellow 74 | 1.4 | 45 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 7 | 5 | 4 | 4 | 5 | 4 | |
| Yellow 75 | 1.5 | 46 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 1 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 5 | 5 | 4 | 1 | 8 | 6 | 4 | 4 | 5 | 5 | |
| Yellow 83 | 1.4 | 52 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 5 | 5 | 4 | 5 | 5 | |
| Yellow 87 | 1.5 | 49 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 4 | 2 | 4 | 4 | 3 | |
| Yellow 127 | 1.4 | 40 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 5 | 5 | 4 | 4 | 4 | |
| Orange 5 | 1.6 | 40 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 2 | 2 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 5 | 5 | 3 | 2 | 4 | 2 | 3 | 2 | 4 | 2 | |
| Orange 13 | 1.5 | 50 | 7 | 5 | 5 | 5 | 5 | 4 | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 4 | 5 | 5 | 5 | 5 | 5 | 3 | 5 | 6 | 4 | 4 | 3 | 2 | 2 |
| Orange 34 | 1.3 | 38 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 1 | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 5 | 2 | 5 | 3 | 6 | 4 | 4 | 4 | 4 | 5 | |
| Red 2 | 1.8 | 50 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 7 | 6 | 5 | 4 | 5 | 4 | |
| Red 3 | 1.5 | 50 | 7 | 5 | 5 | 5 | 5 | 3 | 2 | 2 | 4 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 4 | 4 | 1 | 5 | 7 | 4 | 4 | 2 | 2 | 2 | |
| Red 4 | 1.4 | 46 | 7 | 5 | 5 | 5 | 5 | 2 | 2 | 3 | 1 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 4 | 2 | 5 | 7 | 4 | 4 | 3 | 3 | 3 | |
| Red 8 | 1.4 | 58 | 7 | 5 | 5 | 5 | 5 | 2 | 1 | 2 | 2 | 3 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 5 | 5 | 6 | 4 | 3 | 2 | 2 | 2 | |
| Red 9 | 1.4 | 58 | 7 | 5 | 5 | 5 | 5 | 2 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 1 | 5 | 6 | 4 | 3 | 3 | 3 | 2 | |
| Red 12 | 1.4 | 58 | 7 | 5 | 5 | 5 | 5 | 2 | 1 | 2 | 1 | 3 | 1 | 1 | 2 | 4 | 3 | 3 | 5 | 5 | 1 | 5 | 6 | 4 | 3 | 3 | 3 | 2 | |
| Red 22 | 1.5 | 42 | 7 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 5 | 5 | 5 | 4 | 4 | 5 | 3 | 5 | 4 | 3 | 2 | 4 | 5 | |
| Red 48:1 | 1.5 | 50 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 2 | 5 | 6 | 4 | 5 | 4 | 4 | |
| Red 48:2 | 1.6 | 45 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 2 | 5 | 6 | 3 | 5 | 4 | 4 | 4 | |
| Red 48:3 | 1.8 | 50 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 5 | 5 | 5 | 4 | 2 | 5 | 5 | 3 | 4 | 3 | 4 | 5 | |
| Red 48:4 | 1.9 | 45 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 5 | 5 | 5 | 2 | 2 | 5 | 5 | 3 | 4 | 3 | 4 | 5 | |
| Red 49:1 | 1.3 | 56 | 7 | 5 | 5 | 5 | 5 | 3 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 2 | 5 | 5 | 5 | 3 | 2 | 5 | 5 | 2 | 1 | 1 | 3 | 2 | |
| Red 49:2 | 1.2 | 54 | 7 | 5 | 5 | 2 | 4 | 3 | 4 | 3 | 2 | 4 | 3 | 4 | 4 | 2 | 5 | 5 | 5 | 3 | 2 | 5 | 5 | 2 | 1 | 1 | 3 | 2 | |
| Red 53:1 | 1.8 | 52 | 7 | 5 | 3 | 2 | 4 | 4 | 2 | 2 | 1 | 4 | 1 | 1 | 1 | 2 | 3 | 3 | 5 | 4 | 1 | 4 | 4 | 1 | 4 | 3 | 2 | 2 | |
| Red 57:1 | 1.8 | 58 | 7 | 5 | 2 | 2 | 3 | 4 | 1 | 2 | 1 | 5 | 3 | 2 | 2 | 2 | 4 | 4 | 5 | 4 | 1 | 4 | 5 | 3 | 4 | 3 | 2 | 2 | |

| PRODUCT C. I. NAME | PHYSICAL PROPERTIES | | | | | | | | | | | | | | | | | | | | FASTNESS PROPERTIES | | | | | | | |
|-----------------------|---------------------|----------------------------|------------------|------------------------|--------|---------|------|-------------------|-----------|-----------------|--------|-----------------------|--------|-------------------|------------|--------|--------|--------|-------------|-------------|---------------------|---------------|---------------|---------------------------------|-----------------------|-----------------------|-----------------------|---------------|
| | Specific Gravity | Oil Absorption (gm/100gms) | pH of 1% extract | Reagents (Scale: 1to5) | | | | Solvents (1 to 5) | | | | Plasticizers (1 to 5) | | | | | | | | Light(1to8) | | Heat (1 to 5) | | | | | | |
| | | | | Water | 5% HCl | 5% NaOH | Lime | Ethanol | N-Butanol | N-Butyl Acetate | M.E.K. | White Spirit | Xylene | Mixed NC Solvents | Cellosolve | D.E.G. | D.B.P. | D.O.P. | Linseed Oil | Oleic Acid | Soap | Paraffin Wax | Full Strength | Reduction 1:10 TiO ₂ | 150°C (300°F) 20 min. | 180°C (355°F) 10 min. | 120°C (300°F) 30 min. | N. C. Lacquer |
| Red 63:1 | 1.5 | 50 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 2 | 5 | 4 | 4 | 2 | 3 | 5 | 5 | 5 | 4 | 2 | 5 | 5 | 3 | 4 | 3 | 4 | 4 |
| Red 83:1 | 1.9 | 65 | 7 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 3 | 5 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | 3 | 3 | 4 | 5 | 3 | 4 | 3 | 4 | 4 |
| Red 112 | 1.4 | 40 | 7 | 5 | 5 | 5 | 7 | 4 | 4 | 4 | 3 | 5 | 3 | 2 | 2 | 3 | 3 | 3 | 5 | 4 | 4 | 3 | 5 | 4 | 7 | 6 | 7 | 2 |
| Red 146 | 1.4 | 54 | 7 | 5 | 5 | 5 | 4 | 5 | 4 | 4 | 3 | 3 | 4 | 5 | 2 | 3 | 3 | 3 | 5 | 5 | 4 | 3 | 6 | 6 | 7 | 7 | 7 | 2 |
| Red 170 | 1.4 | 50 | 7 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 4 | 4 | 4 | 7 | 7 | 5 | 4 | 5 | 4 |
| Red 210 | 1.4 | 50 | 7 | 5 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 5 | 4 | 4 | 4 | 7 | 7 | 5 | 4 | 5 | 4 |

EQUIVALENT TO FANAL PIGMENTS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|-----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Red 81 | 1.5 | 65 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Red 169 | 1.4 | 65 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Blue 1 | 1.5 | 60 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Blue 14 | 1.5 | 60 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Blue 62 | 1.5 | 60 | 7 | 4 | 1 | 4 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 4 | 3 | 4 | 2 | 2 | 1 | 3 | 4 |
| Violet 1 | 1.5 | 65 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Violet 2 | 1.5 | 65 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Violet 3 | 1.4 | 65 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |
| Violet 27 | 1.4 | 65 | 7 | 4 | 1 | 1 | 3 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 3 | 3 | 1 | 1 | 5 | 3 | 1 | 3 | 6 | 3 | 3 | 3 | 5 | 4 |





















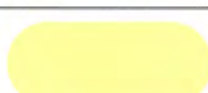

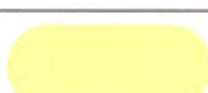





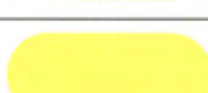






HIGH PERFORMANCE PIGMENTS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|-----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P. Yellow 138 | 1.7 | 40 | 7 | 5 | 5 | 5 | 4 | 4 | 5 | 4 | 4 | 5 | 3 | 4 | 4 | 4 | 5 | 5 | 5 | 3 | 2 | 5 | 5 | 4 | 5 | 5 | 4 | 4 | |
| P. Yellow 139 | 1.6 | 44 | 7 | 5 | 4 | 3 | 4 | 4 | 5 | 4 | 5 | 5 | 4 | 3 | 4 | 5 | 5 | 5 | 5 | 3 | 2 | 5 | 4 | 4 | 5 | 4 | 4 | 4 | |
| P. Yellow 151 | 1.5 | 48 | 7 | 5 | 5 | 3 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 3 | 4 | 4 | 4 | 4 | 5 | 4 | 1 | 4 | 5 | 5 | 4 | 4 | 4 | 4 | |
| P. Red 254 | 1.5 | 44 | 7 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 4 | 1 | 4 | 4 | 5 | 4 | 4 | 5 | 4 | |
| P. Red 122 | 1.4 | 58 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 4 | 5 | 4 | 3 | 4 | 5 | 5 | 5 | 3 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | |
| P. Violet 23 | 1.3 | 98 | 7 | 5 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 4 | 3 | 4 | 4 | 3 | 5 | 4 | 5 | 3 | 2 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 4 |












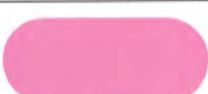



















PHTHALOCYANINE PIGMENTS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|------|----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P. Blue 15:0 | 1.5 | 35 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 5 | 5 |
| P. Blue 15:1 | 1.5 | 40 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 5 | 5 |
| P. Blue 15:2 | 1.6 | 40 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 5 | 5 |
| P. Blue 15:3 | 1.5 | 40 | 7 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 5 | 5 |
| P. Blue 15:4 | 1.5 | 40 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 5 | 5 |
| P. Green 7 | 1.25 | 30 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 8 | 8 | 5 | 5 | 5 | 5 |











ORGANIC PIGMENTS

|  PRODUCT C. I. NAME | MASS TONE  | TINT 1:5  | APPLICATION | | | | | | | | | | | | | |
|--|---|--|-------------|---------|-------|----------|----------------|-------------------|----------------|---------------|--------|------------|----------|---------------|--------|------------------|
| | | | Offset | Gravure | Flexo | TPC Inks | Emulsion Paint | Air Drying Enamel | Stoving Enamel | N. C. Lacquer | O.B.D. | Distempers | Plastics | Leather Cloth | Rubber | Aqueous Emulsion |
| Yellow 1 |  |  | ✓ | ✓ | ✓ | ● | ✓ | ✓ | ✗ | ● | ✓ | ✓ | ✗ | ✗ | ● | ● |
| Yellow 3 |  |  | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✗ | ● | ✓ | ✓ | ✗ | ✗ | ● | ✓ |
| Yellow 12 |  |  | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ● | ✓ | ● | ● | ✓ |
| Yellow 13 |  |  | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ |
| Yellow 14 |  |  | ✓ | ✓ | ✓ | ✓ | ● | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ |
| Yellow 17 |  |  | ✓ | ✓ | ✓ | ✓ | ● | ● | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ |
| Yellow 62 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ● | ✓ | ● | ✓ |
| Yellow 65 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ● | ✓ | ● | ✓ |
| Yellow 74 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ● | ✓ | ● | ✓ |
| Yellow 75 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ● | ✓ | ● | ✓ |
| Yellow 83 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Yellow 87 |  |  | ✓ | ✓ | ✓ | ✓ | ● | ● | ● | ● | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Yellow 127 |  |  | ✓ | ✓ | ✓ | ✓ | ● | ● | ● | ✓ | ● | ✓ | ✓ | ✓ | ✓ | ✓ |
| Orange 5 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ● | ✓ | ✓ | ● | ● | ● | ✓ |
| Orange 13 |  |  | ✓ | ✓ | ✓ | ● | ✗ | ✗ | ✗ | ✗ | ✗ | ● | ● | ● | ✓ | ✓ |
| Orange 34 |  |  | ✓ | ✓ | ✓ | ✓ | ● | ● | ✗ | ✓ | ✗ | ✗ | ✓ | ✗ | ✓ | ● |

















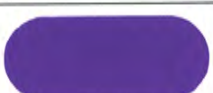
ORGANIC PIGMENTS

| PRODUCT C. I. NAME | MASS TONE | TINT 1:5 | APPLICATION | | | | | | | | | | | | | |
|-----------------------|---|---|-------------|---------|-------|----------|----------------|-------------------|----------------|---------------|--------|------------|----------|---------------|--------|------------------|
| | | | Offset | Gravure | Flexo | TPC Inks | Emulsion Paint | Air Drying Enamel | Stoving Enamel | N. C. Lacquer | O.B.D. | Distempers | Plastics | Leather Cloth | Rubber | Aqueous Emulsion |
| Red 2 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | • | ✓ | • | ✓ |
| Red 3 |  |  | X | X | X | X | ✓ | ✓ | • | • | ✓ | • | X | X | X | X |
| Red 4 |  |  | ✓ | • | • | X | • | ✓ | • | • | • | ✓ | X | X | • | X |
| Red 8 |  |  | ✓ | X | • | • | • | X | X | X | • | • | X | X | • | ✓ |
| Red 9 |  |  | ✓ | ✓ | ✓ | ✓ | X | ✓ | ✓ | • | ✓ | ✓ | ✓ | • | • | X |
| Red 12 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | X | • | X | • |
| Red 22 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | • | ✓ | • | ✓ |
| Red 48:1 |  |  | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | X |
| Red 48:2 |  |  | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | X |
| Red 48:3 |  |  | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | X |
| Red 48:4 |  |  | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | • | • | ✓ | ✓ | ✓ | X |
| Red 49:1 |  |  | ✓ | ✓ | ✓ | ✓ | X | • | • | X | X | X | X | X | X | X |
| Red 49:2 |  |  | ✓ | ✓ | ✓ | ✓ | X | • | • | X | X | X | X | X | X | X |
| Red 53:1 |  |  | ✓ | ✓ | • | • | X | X | X | X | X | X | • | X | • | X |
| Red 57:1 |  |  | ✓ | • | • | • | X | ✓ | • | X | X | • | • | X | • | X |
| Red 63:1 |  |  | ✓ | ✓ | ✓ | ✓ | X | ✓ | ✓ | ✓ | X | X | ✓ | ✓ | ✓ | X |













ORGANIC PIGMENTS

| PRODUCT C. I. NAME | MASS TONE | TINT 1:5 | APPLICATION | | | | | | | | | | | | | |
|-----------------------|---|---|-------------|---------|-------|----------|----------------|-------------------|----------------|---------------|--------|------------|----------|---------------|--------|------------------|
| | | | Offset | Gravure | Flexo | TPC Inks | Emulsion Paint | Air Drying Enamel | Stoving Enamel | N. C. Lacquer | O.B.D. | Distempers | Plastics | Leather Cloth | Rubber | Aqueous Emulsion |
| Red 83:1 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| Red 112 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | • | • | • | ✗ | • | ✗ |
| Red 146 |  |  | ✓ | ✓ | ✓ | ✓ | • | • | • | ✗ | • | • | ✗ | ✗ | ✗ | ✗ |
| Red 170 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | • | ✓ | • | ✓ |
| Red 210 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | • | ✓ | • | ✓ |













EQUIVALENT TO FANAL PIGMENTS

| | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Red 81 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Red 169 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Blue 1 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Blue 14 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Blue 62 |  |  | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ |
| Violet 1 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Violet 2 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Violet 3 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |
| Violet 27 |  |  | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | • | ✗ | ✗ | ✗ | • | ✗ | ✗ |

HIGH PERFORMANCE PIGMENTS

| PRODUCT C. I. NAME | MASS TONE | TINT 1:5 | APPLICATION | | | | | | | | | | | | | |
|-----------------------|--|--|-------------|---------|-------|----------|----------------|-------------------|----------------|---------------|--------|------------|----------|---------------|--------|------------------|
| | | | Offset | Gravure | Flexo | TPC Inks | Emulsion Paint | Air Drying Enamel | Stoving Enamel | N. C. Lacquer | O.B.D. | Distempers | Plastics | Leather Cloth | Rubber | Aqueous Emulsion |
| P. Yellow 138 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | • | ✗ | ✓ | ✗ | ✓ | ✓ |
| P. Yellow 139 |  |  | ✗ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | • | • | ✗ | ✓ | ✗ | ✓ | • |
| P. Yellow 151 |  |  | ✗ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | • | • | ✓ | ✗ | ✗ | • |
| P. Red 254 |  |  | ✗ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | • | ✗ | ✓ | ✗ | ✓ | ✓ |
| P. Red 122 |  |  | • | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | • | • | ✓ | ✗ | ✓ | ✓ |
| P. Violet 23 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | • | • | ✓ | ✗ | • | ✓ | ✗ | ✓ | ✓ |

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|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| P. Blue 15:0 |  |  | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ |
| P. Blue 15:1 |  |  | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✓ | ✓ | ✗ | ✗ |
| P. Blue 15:2 |  |  | ✗ | ✗ | ✗ | ✗ | ✓ | ✓ | ✓ | ✓ | ✗ | ✓ | ✗ | ✗ | ✗ | ✗ |
| P. Blue 15:3 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| P. Blue 15:4 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✗ | ✗ | ✗ | ✗ |
| P. Green 7 |  |  | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |



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