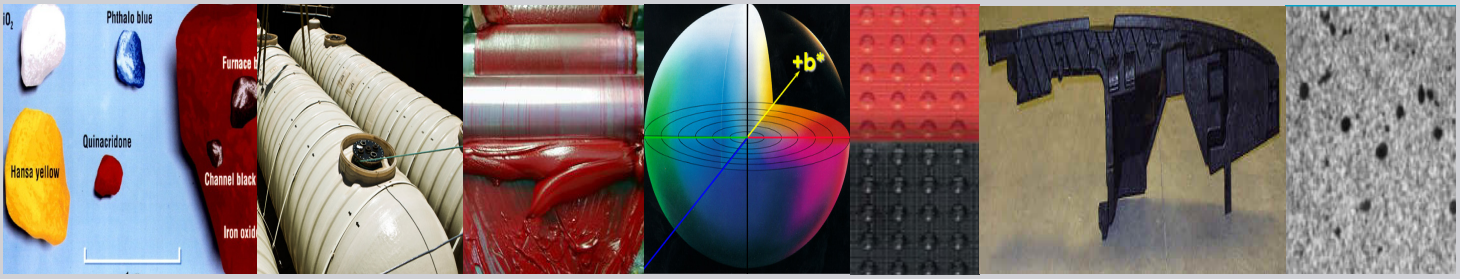
CoREZYN®
INTERPLASTIC

# Polyester Colorants



# Pigment Dispersion Selection Guide

| | | | | | | | | FASTNESS TESTING DATA | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | WEATHER | | HEAT | WATER |
| | | | | UNWEATHERED | | | WEATHERED | VISUAL / DELTA E | VISUAL / DELTA E | VISUAL / DELTA E | VISUAL / DELTA E |
| Standard Colorant | High Performance Colorant** | Color Index # | Chemistry | Masstone[2] | 5:1 Letdown[2] | 20:1 Letdown[2] | QTRAC 350 MJ/m$^2$ Photo (20:1 Letdown) | MASSTONE | LETDOWN | LETDOWN | MASSTONE |
| B-1379-CZZ | B-1311B-CZZ* | Black 7 | Carbon[1] | | | | | 1 / 1.71 | 1 / 6.10 | 1.06 / 0.49 | 1 / 0.93 |
| B-225-CZZ | B-1365-CZZ* | Black 7 | Carbon[1] | | | | | 1 / 0.65 | 1 / 0.41 | 1.03 / 0.37 | 1 / 1.2 |
| B-168-CZZ | B-1383-CZZ* | Black 7 | Carbon[1] | | | | | 1 / 0.66 | 1.33 / 0.41 | 1.08 / 0.61 | 1 / 0.42 |
| B-816B-CZZ | B-1309B-CZZ* | Black 11 | Iron Oxide | | | | | 1 / 0.96 | 1 / 0.87 | 1.88 / 3.82 | 1 / 1.09 |
| A-635-CZZ | A-795-CZZ | Blue 28 | Cobalt Aluminate | | | | | 1 / 0.32 | 1 / 0.47 | 4.94 / 16.24 | 1 / 2.56 |
| A-605-CZZ | A-802-CZZ* | Blue 29 | Ultramarine | | | | In process | In Process | In Process | 12.18 / 3.94 | 3.4 / 5.41 |
| A-629B-CZZ | A-797-CZZ | Blue 190 | Cobalt Chromite | | | | | 1 / 0.26 | 1 / 0.62 | 3.35 / 9.78 | 1.6 / 0.92 |
| A-627B-CZZ | A-766B-CZZ* | Blue 15:4 | Copper Phthalocyanine | | | | | 1 / 1.07 | 1.33 / 2.15 | 3.12 / 8.85 | 1.2 / 0.1 |
| A-411-CZZ | A-764B-CZZ* | Blue 15:3 | Copper Phthalocyanine | | | | | 1 / 0.85 | 1.5 / 2.85 | 3.3 / 9.58 | 1.4 / 0.23 |
| A-399-CZZ | A-762B-CZZ | Blue 15:6 | Copper Phthalocyanine | | | | | 1 / 0.74 | 1.33 / 1.86 | 3.14 / 8.95 | 1 / 0.21 |
| A-3645-CZZ | A-799-CZZ* | Blue 15:1 | Copper Phthalocyanine | | | | | 1 / 0.95 | 1 / 1.24 | 2.73 / 7.28 | 1 / 1.1 |
| A-801-CZZ | A-778B-CZZ* | Blue 15 | Copper Phthalocyanine | | | | | 1 / 0.84 | 1.67 / 1.40 | 3.06 / 8.62 | 1 / 1.06 |
| A-392-CZZ | A-803-CZZ* | Blue 15 | Copper Phthalocyanine | | | | | 1 / 0.58 | 1.33 / 1.19 | 1.78 / 3.41 | 1 / 0.25 |
| G-530-CZZ | G-746B-CZZ* | Green 17 | Chrome Oxide | | | | | 1 / 0.19 | 1 / 0.56 | 1.63 / 2.82 | 1 / 0.34 |
| G-528-CZZ | G-763B-CZZ | Green 36 | Copper Phthalocyanine | | | | | 1 / 0.79 | 1 / 1.48 | 3.14 / 1.71 | 1.8 / 0.83 |
| G-3504-CZZ | G-745B-CZZ* | Green 7 | Copper Phthalocyanine | | | | | 1 / 0.41 | 1 / 1.48 | 1.72 / 3.2 | 1.2 / 1.48 |
| O-217-CZZ | O-378B-CZZ* | Orange 64 | Benzimidazolone | | | | | 1 / 2.62 | 4.83 / 24.14 | 2.06 / 4.56 | 1 / 1.8 |
| 0-209-CZZ | O-368-CZZ | Orange 34 | Diarylide | | | | | 2.33 / 0.63 | 4.83 / 11.44 | 1.92 / 3.99 | 1 / 0.94 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| R-548-CZZ | R-530B-CZZ* | Red 254 | Diketo-pyrrolo-pyrrole | | | | | 1 / 0.53 | 1 / 2.43 | 1.53 / 2.42 | 1 / 0.19 |
| R-234B-CZZ | R-520B-CZZ* | Red 101 | Iron Oxide | | | | | 1 / 0.30 | 1 / 0.26 | 1.15 / 0.86 | 1 / 0.39 |
| R-239-CZZ | R-535-CZZ* | Red 101 | Iron Oxide | | | | | 1 / 0.19 | 1.33 / 0.65 | 1.51 / 2.34 | 1 / 0.28 |
| R-185-CZZ | R-519B-CZZ | Red 208 | Naphthol | | | | | 1.5 / 1.77 | 3.17 / 16.65 | 1.68 / 3.02 | 1 / 0.16 |
| R-213-CZZ | R-521B-CZZ | Red 170 | Naphthol | | | | | 1.67 / 2.15 | 2.83 / 12.42 | 1.45 / 2.1 | 1 / 0.48 |
| R-217-CZZ | R-550-CZZ | Red 170 | Naphthol | | | | | 2.33 / 3.37 | 3.67 / 13.70 | 1.51 / 2.33 | 1 / 0.09 |
| R-384H-CZZ | R-536-CZZ | Red 122 | Quinacridone | | | | | 1 / 1.35 | 1.67 / 2.98 | 2.28 / 5.47 | 1 / 0.09 |
| R-148-CZZ | R-552-CZZ* | Violet 19 | Quinacridone | | | | | 2 / 5.55 | 2 / 6.36 | 2.26 / 5.36 | 1 / 0.74 |
| R-349-CZZ | R-522B-CZZ* | Violet 19 | Quinacridone | | | | | 1 / 1.86 | 2.33 / 3.30 | 2.13 / 4.87 | 1 / 1.27 |
| A-3643H-CZZ | A-775B-CZZ | Violet 23 | Dioxazine | | | | | 1 / 2.60 | 1 / 2.60 | 2.06 / 4.54 | 1 / 0.73 |
| A-542-CZZ | A-805-CZZ* | Violet 15 | Ultramarine | | | | | 1 / 0.74 | 1 / 0.94 | 3.81 / 11.66 | 4.2 / 8.51 |
| Y-290-CZZ | Y-468-CZZ | Yellow 155 | Disazo | | | | | 1.33 / 2.07 | 1.5 / 5.82 | 4.12 / 12.89 | 1.6 / 1.93 |
| Y-727B-CZZ | Y-363B-CZZ* | Yellow 42 | Iron Oxide | | | | | 1 / 1.04 | 1 / 0.38 | 1.66 / 2.94 | 1.2 / 0.68 |
| Y-470-CZZ | Y-365B-CZZ | Yellow 139 | Isoindoline | | | | | 1 / 3.24 | 2.17 / 6.08 | 2.6 / 6.75 | 1.4 / 3.46 |
| Y-209-CZZ | Y-369-CZZ | Yellow 109 | Isoindoline | | | | | 2 / 5.51 | 2.17 / 5.95 | 4.38 / 13.95 | 1.2 / 2.01 |
| Y-3133-CZZ | Y-372-CZZ* | Yellow 53 | Nickel Titanate | | | | | 1 / 0.42 | 1 / 0.72 | 2.57 / 6.62 | 1.4 / 2.21 |
| Y-471-CZZ | Y-370B-CZZ | Yellow 184 | Bismuth Vanadate | | | | In process | In Process | In Process | 12.22 / 3.95 | 1 / 3.68 |
| W-110-CZZ | W-1292B-CZZ* | White 6 | Titanium Dioxide | | | | | 1 / 1.89 | In Process | In Process | 1 / In Process |

NOTES SECTION:

**Visual Rating Scale:**

1 - None/Extremely slight color change
2 - Slight color change
3 - Mild/moderate color change
4 - Significant color change
5 - Severe color change

**Weather Fastness:**

Masstone and 20:1 letdown panels were exposed in South Florida, following ASTM G7 procedure, for six months. The color change ratings appearing in the data tables were prepared using a visual rating scale (value in blue) and a CIELAB DE (value in red).

**Heat Fastness:**

The value shown in red is the color change of the masstone after 17 hours at 275°F and 17 hours at 350°F. The value shown in blue is the average visual rating given by using the visual rating scale. This test was completed in accordance with ISO 787-21 standard.

**Water Resistance:**

The water resistance of the pigments was evaluated in an unfilled NPG-ISO gel coat on a 5:1 letdown. The tested method is described in the ANSI Z124 test method. The panel was exposed to 185°F water for 100 hours after which time the color change was measured on a spectrophotometer and ranked using the visual scale.

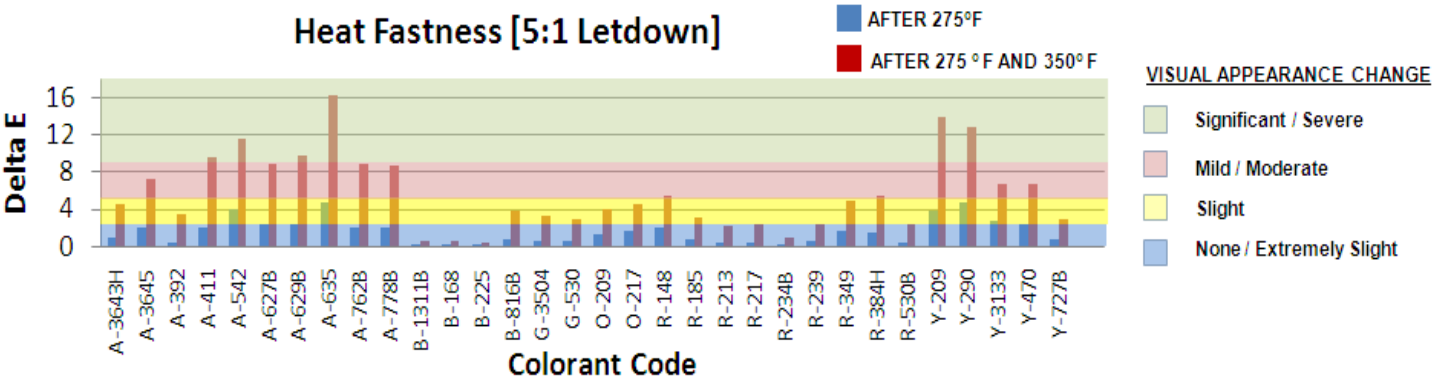
* Colorants are FDA approved.

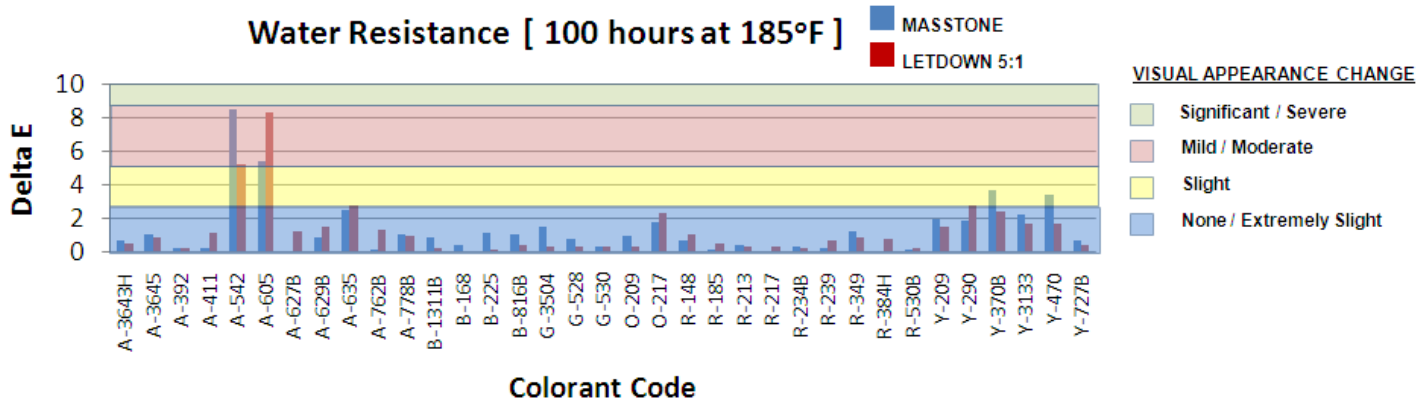
** High Performance: The high performance colorants have excellent blush resistance and outstanding weathering, with gloss and color stability. These colors are made for outdoor use including above and below the water-line in marine applications. Also, depending on the pigment these colorants could be FDA approved.

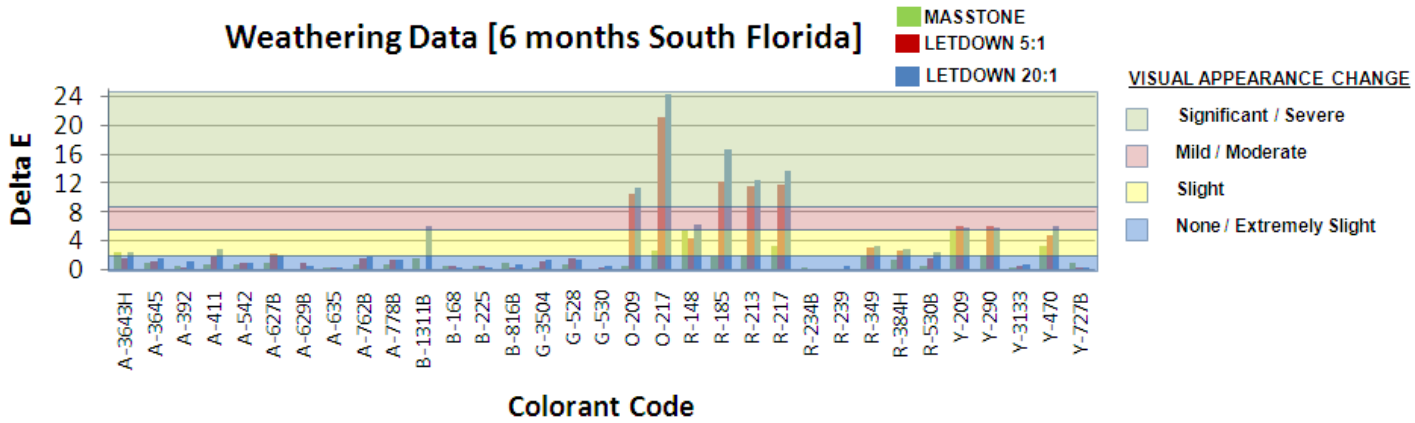
[1] B-1379-CZZ/B-1311B-CZZ are high jetness. B-225-CZZ/B-1365-CZZ and B-168-CZZ/ B-1383-CZZ are medium jetness.

[2] The 5:1 letdown is made by using 5 parts colorant by pigment weight and 1 part white by pigment weight. The 20:1 letdown is made by using 20 parts colorant by pigment weight and 1 part white colorant by pigment weight.

# Fastness Properties

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