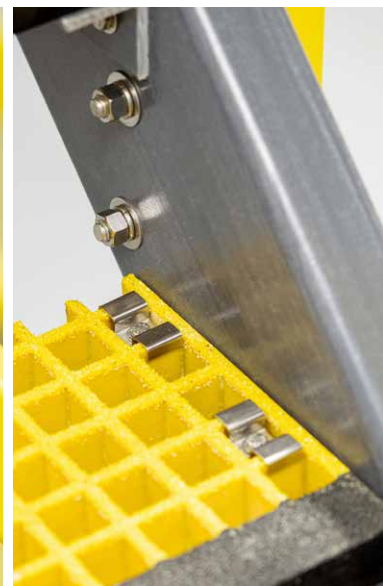


DECADES OF PROTECTION

READYSHIELD STRENGTHENS THE DURABILITY AND PERFORMANCE OF FRP STRUCTURES

Exposure to ultraviolet (UV) rays is one of the leading causes of damage to structural materials. When steel is exposed to UV, it oxidizes, resulting in rust and corrosion that weakens the metal substrate. While fiberglass-reinforced polymer (FRP) is more resistant to UV rays than other materials, some conditions may cause fiber bloom. That's why Bedford developed ReadyShield UV-resistant coating.



Maintaining Structural Integrity

ReadyShield is a proprietary, UV-resistant coating that protects against the negative effects of UV degradation and the potential for fiber bloom. All ReadyShield-coated materials meet or exceed OSHA requirements with pigmented OSHA-compliant safety yellow. The uniquely formulated ReadyShield compound withstands harsh weather exposure, extreme heat and humidity without changes to surface appearance or structural integrity.



LIKE-NEW APPEARANCE THAT LASTS



Even when structural integrity is maintained, rust can make a steel structure unsightly and the safety yellow integrated in FRP can fade over time. Thanks to ReadyShield, the color as well as the material is protected.

Recent tests compared unshielded FRP with ReadyShield-protected FRP. The color-retention results were significant, with most fading imperceptible to the human eye for an ongoing like-new appearance.



Delta E (ΔE) values below 1.0 are not visible to the human eye.

QUV/OUTDOOR WEATHERING COMPARISON

UNSHIELDED CURRENT FR YELLOW PARTS

| Hours | Notes | L | a | b | G | ΔE |
|---------|-------|-------|------|-------|-------|-------------|
| Control | | 80.22 | 2.05 | 74.48 | 18.40 | 0 |
| 500 | | 81.15 | 2.27 | 70.40 | 17.00 | 4.190429572 |
| 1000 | | 80.81 | 3.09 | 66.87 | 12.30 | 7.703362902 |
| 1500 | | 81.27 | 2.80 | 61.79 | 3.00 | 12.75543414 |
| 2000 | | 80.96 | 2.96 | 63.01 | 1.60 | 11.52981353 |

READYSHIELD APPLIED ON FR YELLOW PARTS

| Hours | Notes | L | a | b | G | ΔE |
|---------|-------|-------|------|-------|------|--------------|
| Control | | 82.23 | 2.12 | 58.53 | 8.40 | 0 |
| 500 | | 83.27 | 2.50 | 58.61 | 6.50 | 1.110135127 |
| 1000 | | 82.78 | 2.13 | 58.31 | 5.20 | 0.5924525297 |
| 1500 | | 83.02 | 2.21 | 58.22 | 6.20 | 0.8534049449 |
| 2000 | | 82.80 | 1.95 | 57.78 | 4.70 | 0.9572356032 |

NOTES

Readings were taken using a Spectro-guide Sphere Gloss – the premier tool for measuring color performance and specular gloss.

L Value (light-dark): The higher the L value, the brighter the composite.

a Value (red-green): A higher value indicates that the matrix color is more red (may appear pink); lower values indicate more green. The closer to zero, the more neutral the color.

b Value (yellow-blue): A higher value indicates that the matrix color is more yellow; lower values indicate more blue. The closer to zero, the more neutral the color.

G Value: Refers to the gloss level.

Delta E Value: This measures the total color difference from the desired color or theoretical "brightest" that can be calculated (ASTM D2244). The lower the Delta E, the better the result.

Delta E values below 1.0 are not visible to the human eye.



BEDFORD REINFORCED PLASTICS: ONE CORPORATE DRIVE, SUITE 106, BEDFORD, PA 15522 USA

The photographs and/or drawings in this literature are for illustrative purposes only. While every reasonable effort has been made to ensure the accuracy of this data, we are not responsible for any errors or omissions contained on these pages. Please verify any information in question with a Bedford sales representative. We reserve the right to make changes in specifications without notice and without incurring obligation.

© 2024 Bedford Reinforced Plastics. All rights reserved. 06/24

Request a quote at bedfordreinforced.com or call **814-623-8125**.