

# Crystic Gelcoat LS 31PA Iso-NPG Brush Gelcoat

Scott Bader has spent a number of years in Research and Development to bring you a market leading iso-NPG brush gelcoat for external applications where long-term durability is critical.

## Technical Performance Benefits

- **Superior Weathering Performance** - both accelerated weathering and 12-month natural Florida exposure reveal negligible colour change and excellent gloss retention.
- **Low Styrene Content**
- **Superior Handling** - versus competitive iso-NPG gelcoats
- **Superb Water Resistance**
- **High Resistance to Osmotic Blistering** - proven in a rigorous 12-month test when used as part of a marine grade system.
- **Low Porosity Finish**
- **Lloyd's Approved**
- **Easy to Repair**



## Markets

- ✓ Marine
- ✓ Transport
- ✓ Building
- ✓ Industrial
- ✓ Applications where exterior durability is critical

## Weathering

The main factors contributing to weathering are solar radiation, temperature and water (moisture). To fully measure degradation in different environments, Scott Bader implements a range of weathering tests that includes two forms of natural weathering and two forms of accelerated tests. However, the accelerated weathering results are used only to rank weathering ability and the 12 months natural Florida test is the ultimate indicator.

For natural Florida, Scott Bader uses the Atlas weathering group site in South Florida because of its subtropical climate. The test is carried out using open-backed panels that are 300mm long and 100mm wide. The panels are placed at 5° to the horizontal, in accordance with ASTM G7 "Recommended practice for atmospheric environmental exposures testing of non-metallic material".

To ensure results are consistent, colour change from weathering is measured in-house using the CIElab colour model to measure any colour shift.



Specially designed test panels at the Atlas Weathering Services Group site in Florida, U.S.A.



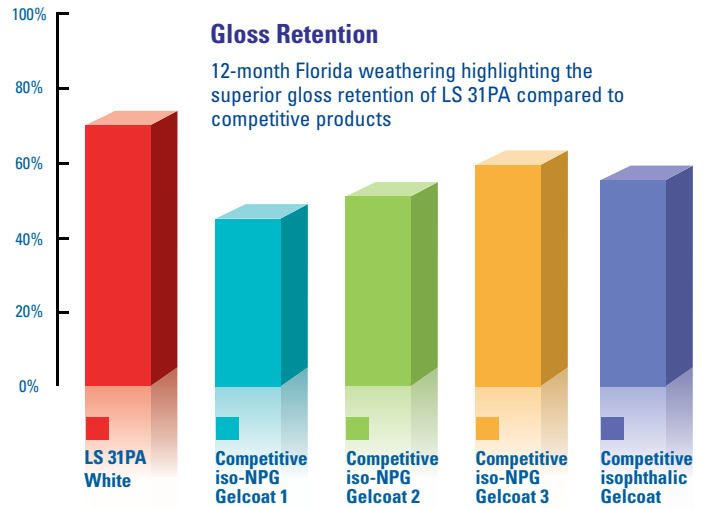
Circular gelcoat panels used for blistering testing.

## Blistering

LS 31PA panels were subjected to water immersion at 40°C for 12 months and showed no sign of blistering and water pick-up was minimal. Scott Bader developed the test and has been using it reliably for over 30 years.

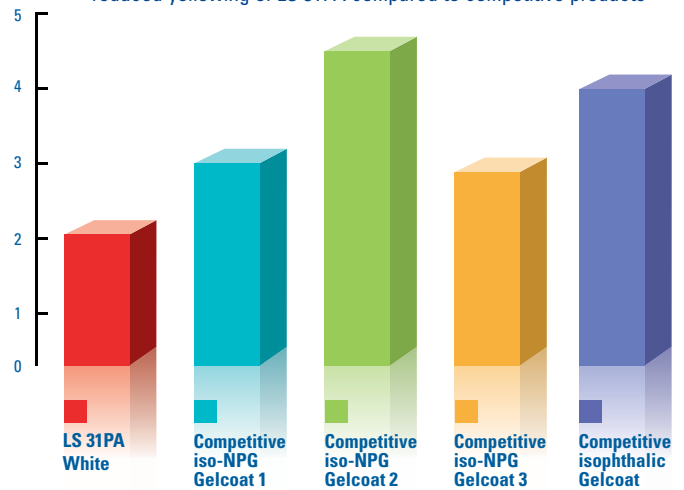
Liquid Properties		
Property	Unit	LS 31PA
Viscosity @ 4500 s <sup>-1</sup>	poise	15
Viscosity @ 0.6 s <sup>-1</sup>	poise	400
Specific Gravity	-	1.1
Geltime @ 25 °C, 2% Catalyst M	minutes	8
Flash Point	°C	28

## Weathering Results of LS 31PA



### Colour Change (dE)

12-month Florida weathering demonstrating the significantly reduced yellowing of LS 31PA compared to competitive products



## Mechanical Properties

Property	Unit	LS 31PA
Tensile Elongation	%	2.1
Tensile Strength	MPa	57
Flexural Modulus	MPa	3222
Barcol Hardness	-	41
Water Absorption, 4 weeks @ 23°C	mg	64
Heat Deflection Temperature (1.80MPa)	°C	65

Head office, UK +44 1933 663100 France +33 22 66 27 66 Scandinavia +46 346 10100 Germany +49 961 401 84474  
Croatia +385 1 240 6440 Eastern Europe +420 48 5228 344 Spain +34 93 553 1162 email: [composites@scottbader.com](mailto:composites@scottbader.com)

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From Technical and Production Excellence comes Performance Excellence