

Polyester, Vinyl Ester and Hybrid Bonding Pastes

## **Technical Data Sheet**



## **Product overview**

Crestafix® 91-21 PA is pre-accelerated isophthalic polyester bonding paste. It is a viscous, filled compound, specifically designed for the assembly and bonding of GRP mouldings. Such applications include panels, inserts, internal frames, ribs, internal core materials, hull to deck assemblies, composite constructions, and car body components. The use of these bonding pastes gives high shear-strength structures.

## **Features and benefits**

Highly thixotropic

Colour change system

Isophthalic base resin

Mineral Filler



No sagging on vertical surfaces

Visual check for effective catalyst mix

Better mechanical properties, water resistance

Cost Savings

Typical application properties		
Working time <sup>1</sup>	30 minutes <sup>a</sup> 24 minutes <sup>b</sup>	
Gel time <sup>2</sup>	30 minutes	
Appearance	Bluish paste	
Recommended application temperature	18 - 25°C (64 - 77°F)	

Typical mechanical properties	
Tensile Strain <sup>3</sup>	71 MPa
Tensile modulus <sup>3</sup>	3500 MPa
Tensile elongation <sup>3</sup>	4.6 %

\*Post Curing: 24h at Room Temperature + 16h at 40°C

Typical liquid properties	
Viscosity	Highly thixotropic
Specific Gravity at 25°C	1.2 – 1.3
Shelf life <sup>4</sup>	6 months

# **Substrates**

Crestafix® 91-21PA is suitable for use on GRP laminate, but can also be used on timber and plasterboard. However, it is recommended that trials are carried out to ensure that adequate bond strengths are obtained.

Please contact Scott Bader technical support for information on other substrates and advice.





# Surface preparation

The surfaces to be bonded should be clean, dry and free from any contamination. It may be necessary to roughen the surfaces to be bonded in order to obtain the bond strength required. Each surface should be coated with the catalysed bonding paste and held together until the paste has hardened. The bond strength of Crestafix® 91-21PA will decrease at service temperatures greater than 60°C. Structures carrying loads above this temperature should either have additional mechanical fastening, such as bolts or rivets, or be bonded with a more suitable adhesive. Crestafix® 91-21PA does not give a good, permanent bond to metal surfaces unless some mechanical interlocking, such as a metal mesh, is used. The bonding pastes can be used on surfaces other than GRP e.g., timber, plasterboard, etc. However, it is recommended that trials are carried out to ensure that an adequate bond strength is obtained.

# **Application**

Crestafix® 91-21 PA should be allowed to attain workshop temperature (18°C - 20°C) before use. Crestafix® 91-21PA requires only the addition of catalyst to start the curing reaction. The recommended catalyst is a medium reactivity MEKP catalyst, which should be added at 1 to 2 % into the bonding paste. (Please consult our Technical Service Department if other catalysts are to be used). The catalyst should be thoroughly incorporated into the material with a low shear mechanical stirrer where possible.

For industrial/commercial use only. The user must determine the suitability of a selected adhesive for a given substrate and application. Contact your local Scott Bader representative for questions or assistance with the selection of adhesives for your use. This product is intended for use by skilled individuals at their own risk. Recommendations contained herein are based on information we believe to be reliable. The properties and strength values have been obtained under controlled conditions at the Scott Bader laboratory.

## Coverage

As a rough guide, 4.0Kg (9 lbs) of bonding paste will cover one square metre to a depth of approximately 3mm (0.12 inch).

# Storage and shelf life

Crestafix® 91-21PA should be stored in the dark in suitable, closed containers. It is recommended that the storage temperature should be less than 20°C where practical but should not exceed 30°C. Ideally, containers should be opened only immediately prior to use. Where they must be stored outside, it is recommended that they are kept in a horizontal position to avoid the possible ingress of water. The shelf life is defined from date of manufacture when stored as recommended. The expiry date is indicated on product labels.

# **Packaging**

Crestafix® 91-21PA is supplied in 25Kg (55 lbs) and 225Kg (500 lbs) containers.

## Health and safety

See separate Safety Data Sheet.

## **Notes**

- Working time measured as 100g of adhesive at 25°C (77°F) with; a: 1% medium reactivity MEKP and b: 2% medium reactivity MEKP
  - 2. Gel time measured at 25°C using 1% Butanox M50.
    - 3. Tensile properties tested to BS EN ISO 527-2.
  - 4. Shelf life is defined from date of manufacture when stored as recommended.

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