CRESTOMER Advantage 30

Structural Adhesive

Description

Crestomer Advantage 30 is a structural adhesive that bonds a wide range of substrates with minimal surface preparation and lower odour than competitive materials. It has a white colour, with a fast geltime of 30 minutes and bonded parts are workable in 2 hours and 20 minutes. Crestomer Advantage 30 is based on Scott Bader's innovative urethane acrylate technology and exhibits exceptional impact strength and toughness. Its excellent adhesion and gap filling capabilities offer great flexibility in design with significant time and cost savings.

Characteristics using Advantage 30 Catalyst

Characteristics	Typical Value	Unit
Working Time/Geltime[1]	30	Minutes
Fixture Time[2]	2:20	Hours
Gap Filling	1 - 20	mm
Flash Point	33	°C
Colour Change (over cure)	None	-

Physical Data – Uncured

Property	Typical Value	Unit
Viscosity[3]	280,000 – 350,000	cP
Specific Gravity	1.1 – 1.2	-
Volatile Content	40 - 45	%
Mix Ratio[4]	As supplied	Volume
Colour/Appearance	White Paste	-
Stability at 20°C[5]	6	Months

Physical Data – Cured

Property	Typical Value	Unit	Test Method
Hardness	65	Shore D	BS EN ISO 868:2003
Maximum Tensile Strength	15	MPa	BS EN ISO 527-2:1996
Tensile Modulus	320 - 380	MPa	BS EN ISO 527-2:1996
Elongation at Break	>85	%	BS EN ISO 527-2:1996
Water Absorption	0.68	%	BS EN ISO 62:1999

Bond Joint Strength – Typical Lap Shear Strengths (MPa) BS ISO 4587:2003[6]

	FRP	Marine Ply	Aluminium	Stainless Steel
FRP	13.2*	-	-	-
Marine Ply	-	5.0*	-	-
Aluminium	-	-	9.4	-
Stainless Steel	-	-	-	8.6

Values are based on substrate failure where marked by *

Approvals

Crestomer Advantage 30 has DNV Approval and a Statement of Acceptance from Lloyd's Register of Shipping for use in the construction of craft built under their survey.

Surface Preparation

Crestomer Advantage 30 has excellent adhesion to FRP material provided that the surface has been maintained free of dust and grease. This can be guaranteed by the use of proprietary strippable cloths such as peel ply (without lubricant contaminates). If the laminate surfaces are more than 3 days old, it is recommended that they are lightly abraded and wiped with acetone or styrene on a lint-free, clean cloth prior to bonding.

Application

Crestomer Advantage 30 is supplied ready to use in pre-packed 380ml co-axial cartridges with no hand mixing required. Crestomer Advantage 30 is supplied pre-accelerated and contains Advantage Catalyst within the cartridge. The mixer indicator system imparts a neutral, opaque white colour and this blends well in cosmetically sensitive applications. Recommended temperature range for application is between 18 and 25°C.

Storage

Crestomer Advantage 30 should be stored internally in its original container. It is recommended that the storage temperature should be between 15 and 20°C. Cartridges should be opened only immediately prior to use. Products should never be frozen.

Packaging

Crestomer Advantage 30 is supplied in 380ml co-axial cartridges.

Health and Safety

See separate Material Safety Data Sheet

Notes

1 Geltime measured with 100g mass of adhesive at 25°C.
2 Time taken at 23°C (ambient temperature) to achieve 1.4MPa strength in lap-shear tests according to BS ISO 4587:2003[6].
3 Measured using Brookfield Viscometer at 25°C.
4 Mix ratio based on cartridge dispensing, as supplied
5 Stability defined from date of dispatch when left un-opened in the original containers and out of direct sunlight.
6 Surface preparation methods vary between substrates; FRP - removal of strippable cloth; Marine-ply – dust-free and degrease; Aluminium – P2 etch; Steel - degrease, abrade and degrease.

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