

INTRODUCTION

Crestapol® 1213A is a highly filled, partially accelerated, tough, urethane acrylate resin designed for applications requiring the highest levels of fire & smoke performance. It incorporates a selected grade of Alumina Trihydrate (ATH) which makes it suitable in the production of laminates where excellent fire resistance and low levels of smoke & toxic fumes are required. Crestapol® 1213A is halogen free and does not contain heavy metals.

RESIN/GLASS RATIO

Crestapol® 1213A - resin to glass by weight ratio of 3.5 : 1 is recommended for hand lamination.

APPLICATIONS

Crestapol® 1213A has been primarily designed for use in closed mould applications, including RTM and Vacuum infusion with suitable reinforcements.

Due to its excellent fire, smoke & toxicity properties, the product can be used in the most demanding applications in the building and construction, public transport and railway.

FEATURES & BENEFITS

Crestapol® 1213A is a versatile resin with excellent fire, smoke & toxicity properties and good mechanical properties. Its viscosity characteristics have been designed to promote a good resin flow through the mould using appropriate reinforcements, whilst minimising filler settlement during storage. It is recommended for use when excellent low smoke, low toxic fume emissions and fire resistant laminates is desired.

Key features are:

- Low viscosity
- Rapid cure
- Excellent toughness
- No post cure required
- Pre-filled with a special grade of Alumina Trihydrate (ATH)
- Excellent surface finish
- Excellent FST performance

FORMULATION

Crestapol® 1213A is a pre-filled, partially accelerated resin and must be thoroughly stirred and allowed to attain workshop temperature (18°C - 20°C) before use. It requires the addition of a catalyst to start the curing reaction. The recommended catalyst is Dibenzoyl peroxide (50%) and should be added into the resin at a level of 1.0% and thoroughly dispersed. (Liquid cure systems may be also considered - for more details please seek assistance from our Technical Services Department).

ADDITIVES

Crestapol® 1213A is filled with a special grade of Alumina Trihydrate (ATH) to provide good resin flow in closed mould systems and also give excellent fire, smoke & toxicity properties. It incorporates anti-settling additives to minimise filler settlement during storage and promote good filler redispersion in the resin.

PHYSICAL DATA - UNCURED

The following tables give typical properties of Crestapol® 1213A when tested in accordance with the appropriate SB, BS, BS EN or BS EN ISO test methods.

Property	Unit of Measure	Crestapol 1213A
Appearance	-	Cream
Viscosity at 25°C 4500 sec ⁻¹	Poise	10
Specific Gravity at 25°C	gcm ⁻³	1.62
Volatile Content	%	21
Stability from date of manufacture when stored in accordance with storage recommendations	Months	3
Geltime*	Minutes	20 - 30
Geltime to Peak*	Minutes	10
Peak Temperature*	°C	69

*With 1.0% Dibenzoyl peroxide (50%) at 20°C

PHYSICAL DATA - CURED

Property	Unit of Measure	Resin (without Post Cure)
Barcol Hardness	-	40
Deflection Temperature Under Load (1.80MPa)	°C	62
Water Absorption 24hrs @ 23°C	mg	23
Tensile Strength	MPa	24
Tensile Modulus	GPa	8.0
Elongation at Break	%	1.8

Property	Unit of Measure	C.S.M* Not Post-Cured Laminate
Glass Content	%	13.1
Tensile Strength	MPa	62
Tensile Modulus	GPa	11.5
Elongation at Break	%	1.9
Flexural Strength	MPa	112
Flexural Modulus	GPa	6.5

Property	Unit of Measure	Fully Cured Resin**
Barcol Hardness	-	40
Deflection Temperature Under Load (1.80MPa)	°C	73
Water Absorption 24hrs @ 23°C	mg	25
Tensile Strength	MPa	23
Tensile Modulus	GPa	7.3
Elongation at Break	%	2.1

Property	Unit of Measure	C.S.M* Fully cured Laminate**
Glass Content	%	13.1
Tensile Strength	MPa	69
Tensile Modulus	GPa	8.6
Elongation at Break	%	1.9
Flexural Strength	MPa	113
Flexural Modulus	GPa	6.3

* Made with 4 layers 450g/m² PB CSM

** Curing schedule – 24hrs at 20°C, 3hrs at 80°C

† Curing schedule – 24hours at 20°C, 5 hours at 80°C, 3 hours at 120°C

STORAGE

Crestapol 1213A should be stored between 5°C and 25°C in the original, unopened container in a dry, well ventilated place. Protect from freezing and direct sunlight. Avoid contact with oxidising agents. If stored outside of these recommendations, shelf life will be significantly reduced.

PACKAGING

Crestapol 1213A is supplied in 25kg and 300kg containers.

HEALTH & SAFETY

Please see separate Materials Safety Data Sheet.



Making a *positive* difference

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