

CRESTAPOL[®] 1216

Introduction

Crestapol 1216 is a tough, low viscosity resin with a rapid cure, which can be highly filled to achieve a high level of fire & smoke performance (ASTM E84 Class 1). It is designed for use in hand lamination applications.

Key Features

- Low viscosity
- Rapid cure
- Excellent toughness
- No post cure required

Formulation

This resin should be allowed to attain workshop temperature before use. Filler should be thoroughly dispersed and can be added up to 200PHR. It requires the addition of a catalyst and two accelerators to start the curing reaction.

N.B. Catalyst and accelerators should not be mixed directly together, since they react with explosive violence.

The recommended catalyst is Trigonox 44B and the recommended accelerators are Accelerator G and dimethyl aniline (DMA). The geltimes that can be achieved depend on the levels of accelerators and catalyst. Examples are shown in the tables below.

Pot Life

Table 1 – 2.0% Accelerator D¹ and 1.0% Trigonox 44B

Parts of Accelerator G ² to 100 Parts of Catalysed Resin	1.0	1.5	2.0
Pot Life (mins) at 15°C	62.3	49.2	41.5
Pot Life (mins) at 20°C	37.0	30.9	24.8
Pot Life (mins) at 25°C	25.0	18.8	16.7

Table 2 – 2.0% Accelerator D¹ and 1.5% Trigonox 44B

Parts of Accelerator G ² to 100 Parts of Catalysed Resin	1.0	1.5	2.0
Pot Life (mins) at 15°C	35.4	24.4	19.0
Pot Life (mins) at 20°C	23.1	18.6	14.9
Pot Life (mins) at 25°C	14.4	11.2	8.5

Table 3 – 2.0% Accelerator D¹ and 2.0% Trigonox 44B

Parts of Accelerator G ² to 100 Parts of Catalysed Resin	1.0	1.5	2.0
Pot Life (mins) at 15°C	20.5	13.9	11.7
Pot Life (mins) at 20°C	12.8	9.5	7.5
Pot Life (mins) at 25°C	10.1	7.4	5.7

Accelerator D¹ - 10% solution of DMA (dimethyl amine) in styrene.

Accelerator G² - 1% solution of cobalt in styrene.

NB: Please note that without DMA the geltime to peak time may be significantly increased.

Additives

Crestapol 1216 may be filled with a variety of fillers, such as calcium carbonate or alumina trihydrate.

Post Curing

Without post cure, Crestapol 1216 can reach above 90% of its total cure. Therefore, no post cure is required.

Physical Data – Uncured

The following tables give typical properties of Crestapol 1216 when tested in accordance with BS2782.

Property	Unit	Crestapol 1216
Appearance	-	Cloudy Yellowish Brown
Viscosity at 25°C	Poise	1.75
Specific Gravity at 25°C	-	1.10
Volatile Content	%	36
Stability in The Dark at 20°C	Months	12
Geltime*	Minutes	8.5
Geltime To Peak*	Minutes	3
Peak Temperature*	°C	153

*With 2% Accelerator G², 2.0% Accelerator D¹ (Crestapol 1216 only), 1.5% Trigonox 44B at 25°C

Physical Data – Cured

Property	Unit	Resin*
Barcol Hardness	-	44
Deflection Temperature Under Load (1.80MPa)	°C	78.6
Tensile Strength	MPa	61
Tensile Modulus	GPa	3.1
Elongation at Break	%	3.3
Property	Unit	C.S.M** Laminate
Glass Content	%	30.0
Tensile Strength	MPa	128
Tensile Modulus	GPa	8.0
Elongation at Break	%	1.7
Flexural Strength	MPa	211
Flexural Modulus	GPa	7.9

*With 2% Accelerator G, 2% Accelerator D and 2% Trigonox 44B at 25°C; cured for 24 hours at 25°C and then postcured for 16 hours at 40°C

**Made with 4 layers 450g/m² PB CSM

Storage

Crestapol 1216 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 be above 30°C. Ideally, containers should be opened immediately prior to use. Where they have to be stored outside, it is recommended that containers be kept in a horizontal position to avoid the possible ingress of water.

Packaging

Crestapol 1216 is supplied in 25Kg, 200Kg and 1000Kg containers.

Health and Safety

Please see separate Materials Safety Data Sheet.

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