

# CRESTAPOL<sup>®</sup> 1210 & CRESTAPOL<sup>®</sup> 1210A

## Introduction

Crestapol 1210 is a tough, low viscosity resin with a rapid cure, which can be highly filled. It is designed for use in closed mould processes (please see Close Mould Guide). A partially pre-accelerated grade is available (Crestapol 1210A). Please contact our Technical Services Department for further details.

Crestapol 1210 and Crestapol 1210A are not recommended for open mould 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. It requires the addition of a catalyst and two accelerators (one in the partially pre-accelerated grade) 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). Please note DMA may not be required with Crestapol 1210A. The gellimes 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 D<sup>1</sup> and 1.0% Trigonox 44B

Parts of Accelerator G <sup>2</sup> 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 D<sup>1</sup> and 1.5% Trigonox 44B

Parts of Accelerator G <sup>2</sup> 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 D<sup>1</sup> and 2.0% Trigonox 44B

Parts of Accelerator G <sup>2</sup> 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

**Table 4 – 1.5% Trigonox 44B (not relevant for Crestapol 1210)**

<b>Parts of Accelerator G<sup>2</sup> to 100 Parts of Catalysed Resin</b>	<b>1.0</b>	<b>1.5</b>	<b>2.0</b>
Pot Life (mins) at 15°C	47.3	32.3	25.6
Pot Life (mins) at 20°C	31.8	23.8	19.6
Pot Life (mins) at 25°C	20.6	15.0	12.5

Accelerator D<sup>1</sup> - 10% solution of DMA (dimethyl amine) in styrene.

Accelerator G<sup>2</sup> - 1% solution of cobalt in styrene.

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

#### **Additives**

Crestapol 1210 and Crestapol 1210A may be filled with a variety of fillers, such as calcium carbonate or alumina trihydrate, with a particle size of less than 5µ.

#### **Post Curing**

Without post cure, Crestapol 1210 and 1210A reach approximately 94% of their total cure. Therefore, no post cure is required.

#### **Physical Data – Uncured**

The following tables give typical properties of Crestapol 1210 and Crestapol 1210A when tested in accordance with BS2782.

<b>Property</b>	<b>Unit</b>	<b>Crestapol 1210</b>
Appearance	-	Clear 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	>6
Geltime*	Minutes	8.5
Geltime To Peak*	Minutes	3
Peak Temperature*	°C	153

\*With 2% Accelerator G<sup>2</sup>, 2.0% Accelerator D<sup>1</sup> (Crestapol 1210 only), 1.5% Trigonox 44B at 20°C

#### **Physical Data – Cured**

<b>Property</b>	<b>Unit</b>	<b>Resin (Without Post-Cure)</b>
Barcol Hardness	-	44
Deflection Temperature Under Load (1.80MPa)	°C	93
Tensile Strength	MPa	79
Tensile Modulus	GPa	3.5
Elongation at Break	%	3.3
<b>Property</b>	<b>Unit</b>	<b>C.S.M** Laminate</b>
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

\*\*Made with 4 layers 450g/m<sup>2</sup> PB CSM

**Storage**

Crestapol 1210 and Crestapol 1210A 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 1210 and Crestapol 1210A are supplied in 25Kg, 200Kg and 1 tonne containers.

**Health and Safety**

Please see separate Materials Safety Data Sheet.

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