

## Introduction

Crestafire® P2-2001PA is a DCPD modified, vinyl ester pre accelerated resin. It incorporates a selected grade of Alumina Trihydrate (ATH) which makes it suitable to produce laminates where excellent resin flow, fire retardancy and low levels of smoke & toxic fumes are required.

Crestafire® P2-2001PA is halogen free and does not contain heavy metals.

## Approvals

Cured laminates produced with Crestafire® P2-2001PA and Crestafire® GCS 1005PA gelcoat (750µm) can achieve a rating of **HL3 - R1/R7/R17** according to rail standard EN45545-2:2013.

## Applications

Crestafire® P2-2001PA has been designed for use as a resin for closed mold application with a wide range of gel times with various catalysts.

Crestafire® P2-2001PA has excellent blister resistance and significantly reduces the occurrence of print through, to produce durable moldings with an enhanced surface finish as well as outstanding Fire, Smoke and Toxicity performances.

## Typical properties

Property	Unit	Liquid Resin
Appearance		Red / Brown
Viscosity - (cone & plate 0-5P) 25°C	Poise	3,5 - 5
Stability from date of manufacture when stored in accordance with storage recommendations	Months	3

Property	Unit	Fully Cured Resin **
Barcol Hardness	-	48
Deflection Temperature under load (1.80 MPa) †	°C	93
Tensile Strength	MPa	55
Tensile Modulus	GPa	55.1
Elongation at Break	%	1.20

\*\*: Curing Schedule – 24 hours at 20°C, 3 hours at 80°C

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

## Additives

The addition of fillers or pigment pastes can adversely affect the properties of the cured laminate. Users should seek advice from our Technical Support Department before making any additions.

## Typical properties on a laminate

Property	Unit	Post cured CSM (**)
Glass content	%	62 (*)
Tensile Strength	MPa	303
Tensile Modulus	GPa	22.1
Elongation at Break	%	2.04
Flexural Strength	MPa	537
Flexural Modulus	GPa	20.1

\*: Made with 5 layers 1200gsm QUAD LEO from Saertex

\*\*: Curing Schedule – 24 hours at 20°C, 3 hours at 80°C

NOTE: the results above are issued from Scott Bader R&D laboratory. Customer testing with different laminate lay-up and manufacturing process may give different results.

## Before Use

Crestafire® P2-2001PA should be 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 a solution of MEKP and cumyl hydroperoxide in solution with dimethyl phthalate, which should be added at 1% - 2% into the resin. The catalyst should be thoroughly incorporated into the resin, using a low shear mechanical stirrer where possible.

As many different options could be used, Users should seek advice from our Technical Support Department for more information.

## Pot Life

Crestafire® P2-2001PA has a pot life of approximately 90 ~100 minutes at 20°C with 1.5% catalyst.

## Post curing

For optimum properties, however, laminates should be post-cured before being put into service. The laminate should be allowed to cure for 24 hours at 20°C, and then be oven cured for 16 hours at 40°C or 3 hours at 80°C.

## Storage

Crestafire® P2-2001PA 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

Crestafire® P2-2001PA is supplied in 25kg, 225kg & 1100kg containers.

## Health and safety

Please see separate Safety Data Sheet.