

CRYSTIC R115 PA V01

Flexible unsaturated polyester resin

Introduction

CRYSTIC R 115 PA V01 is a flexible, pre-accelerated, orthophthalic unsaturated polyester resin.

Application

CRYSTIC R 115 PA V01 can be used by hand lay up or by spray application for the production of most glass reinforced laminates. This resin can also be used for casting applications.

Features and Benefits

Features

Low viscosity
Flexible
Low exotherm

Benefits

Good wet out
High elongation at break
less shrinkage

Formulation

The following cold curing formulation is recommended:

CRYSTIC R 115 PA V01 : 100 parts

Catalyseur M : 1 to 2 parts

Catalyst M is a Méthyl Ethyl Kétone Peroxyde at 50% such as the Butanox M 50 from AKZO.

Gel time

The ambient temperature, the quantity and the type of catalyst will control the gel time of the resin. Curing should not be carried out at temperature below 15°C.

Parts of catalyst M for 100 parts of CRYSTIC R 115 PA V01	1	2
Gel time at 15°C in min	74	28
Gel time at 20°C	48	19
Gel time at 25°C	30	10

Additives

Since certain pigments, fillers or extra styrene may affect the properties of **CRYSTIC R 115 PA V01** their effect should be evaluated before addition to the formulation.

Post-Curing

For most applications satisfactory results will be obtained by curing at room temperature (20°C). Some improvement in properties may be obtained by post-curing 16 hours at 40°C after release from the mould.

Typical properties

On liquid resin

Viscosity at 25°C , Rhéomat at 37.35 sec ⁻¹	dPas	2.5 – 3.5
Specific Gravity		1.10
Acid Index	mg KOH/g	16 – 22
Volatil content	%	34 - 38
Aspect		pinkish
Stability in the dark at 20°C	Month	3
Gel time at 25°C for 100 g of resin + 2g cata.lyst M	min	9 – 12

On fully cured resin

*

Barcol hardness (GYZJ 934-1)		35
Water absorption (24h à 23°C)	mg	14
Heat Deflection Temperature under load (1,8 MPa)	°C	47
Specific gravity at 20°C		1.2
Elongation at break	%	15
Tensile Strength	MPa	40
Tensile modulus	MPa	1700

Test according to BS 2782 :1980

1MPa = 1MN/m² = 1N/mm² = 10,2 kgf/cm²

* cured 24 h at 20°C then 3 h à 80°C except for the HDT where the schedule was 24 h at 20°C then 5 h at 80°C then 3h at 120°C.

Packaging

CRYSTIC R 115 PA is supplied in 225 kg or 1100 kg containers. Bulk supplies can be delivered by road tanker.

Storage

CRYSTIC R 115 PA V01 should be stored under cover in the dark in the container in which it is supplied. Storage temperatures should not exceed 20°C.

Health and security

Please see Safety Data Sheet

All information is given in good faith but without warranty. We cannot accept responsibility or liability for any damage, loss or patent infringement resulting from the use of this information.

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