

**Epoxy Foaming Resing** 

1100/7152



## Description

(A) 1100 is medium viscosity, milky white, modified Bisphenol 'A' epoxy resin and (B) 7152 is low viscosity, polyamine modified hardener suitable to cure at ambient temperature. The combination of resin and hardener produces low density "in situ" foam of approximately 200 - 250 Kgs/m<sup>3</sup> density at room temperature and atmospheric pressure. This system is able to provides fast expansion, slow rate of hardening, homogeneous density, very low water absorption with excellent mechanical and adhesion properties with various types of substrates.

### Application

This system is suitable to cast core materials, floating volumes, increasing the density of foams and honey combs, thermal insulation, and manufacturing of machinable blocks for models.

## Plalinum Pt A 1100

Property	Test method	Unit	Specification
Appearance	-	-	Milky viscous liquid
Viscosity @ 25 °C	JIS K 7233 (86)	cPs	12,000 - 20,000
Specific gravity @ 25 °C	TEC-AS-P-004	-	1.10 - 1.20

### Plalinum Pt B 7152

Property	Test method	Unit	Specification
Appearance	-	-	Yellow
Viscosity @ 25 °C	JIS K 7233 (86)	cPs	100 - 500
Specific gravity @ 25 °C	TEC-AS-P-004	-	0.90 - 1.00
Color	GARDENER	-	4 Max.

# Mixing procedure

**Pt A**1100 is premixed with foaming agent, thus, resin must be well stirred before mixing with hardener. This system is adequate to stir by conventional method for prototype production. Heatable lowpressure mix-metering system with dynamic /static mixing head is recommended for series production. To reduce the viscosity and good wetting for fibers, both components can be heated to 40 - 45 °C.

### Processing properties of system

Property	Unit	Value
Resin : Hardener ratio	Parts by weight	100 : 27
Pot Lift @ 25 °C (100 gms mix)	Minutes	12 - 18
Foam hardening time @ 25 °C (100 gms mix)	Minutes	30
Minimum post cure cycle @ 60 °C @ 80 °C	Hrs	8 4

## Typical performance properties of foam (Cured @25°C/ 24 hrs + 60 °C/8 hrs)

Property	Unit	Value
Compression Compression strength Offset compression yield	MPa %	5 - 8 2.5 - 4
<u>Flexural</u> Maximum flexural strength Elongation at maximum load	MPa %	4 - 8 1 - 2
Water absorption 25 °C/24hrs	%	0.3 - 0.6
Glass transition, Tg	°C	80

### Storage and handling

**Platinum**(A) 1100 and (B) 7152 should be stored in dry place, well sealed containers at 20-35 deg C temperature. Under these conditions the shelf life is 1 year. The products should not be exposed to direct sunlight. Storage condition below 15 °C may cause crystallization of the resin as well as hardener. Crystallization may be reversed completely by heating the material to 40 - 45 °C.

Resin is premixed with foaming agent which may get separate during storage, thus, it is recommened to stir the resin homogenously prior to mix with hardener.

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