POLYMER GROUP LTD
SOLUTIONS FOR EXTREME ENVIRONMENTS

Product Data Sheet

ENDURATHANE CSX 200

FAST, COLD SETTING, SOLID CASTABLE POLYURETHANE RESIN

DESCRIPTION:

The Endurathane CSX200 is a blend of polyols fillers, catalyst and pigment which reacts at room temperature to produce a polyurethane elastomer suitable for the encapsulation of electrical components, and the making of moulds, models and prototypes.

Medium cure and medium demould times are a feature of Endurathane CSX200 which enable high productivity and good mould turnaround. The demould time and full cure can be reduced with post-curing. Endurathane CSX200 feature cold processability and cure as low as 0 °C Endurathane CSX200 also possess excellent machineability.

RECOMMENDED USES:

The low viscosity and medium pot-life of the mixed system ensure good flow for wetting out fine windings and air release. The cured encapsulant provides excellent protection against moisture penetration.

SPECIFICATION:

Polyol Component

Appearance - white or coloured viscous liquid
Viscosity at 25°C - 1300 – 1500 mPas
Specific Gravity - 1.05 – 1.08

Isocyanate Component

Appearance - Clear Amber Liquid
Viscosity at 25°C - 120 cPs
Specific Gravity - 1.18 ± 0.01

PROCESSING:

The two components can be processed through a suitable polyurethane dispenser – details are available on request. Smaller quantities can be mixed by hand if desired, followed by vacuum de-gassing if a completely air free casting is required.

The optimum processing temperature for both components is in the range 20-25°C, lower component temperatures will result in a longer gel time and vice-versa. The system will reach full cure within approximately 24 hours at normal ambient temperatures.

TYPICAL PROPERTIES MIXED SYSTEM:

Mixing ratio by weight

110A : 100B **Parts by Weight**
100A : 100B **Parts by Volume**

Gel time @ 20°C Typically 4 – 10 minutes (May be catalysed to desired gel time upon request)
Shore D Hardness 80-85A

CURED PROPERTIES:

Properties	Unit	Method	Value
Shore Hardness	°A/°D	ASTM D2240	80°A
Tensile Strength	MN/m²	BS 903 Pt A2	</=5
Elongation at Break	%	BS 903 Pt A2	</=80
Tear Strength (angle)	KN/m	BS 903 Pt A3	</=18

PACKAGING

System Available in:	Pack Sizes by Weight
CSX200	Pt.A 9.65 Kg plastic jerry Pt.B 8.75 Kg plastic pail
	PtA 220kgs drum PtB 200kgs drum

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STORAGE AND HANDLING PRECAUTIONS

ALL CHEMICALS MUST BE USED BY TRAINED PERSONNEL. Mix up chemicals in a well-ventilated work space.

Component A (Isocyanate) must be stored in tightly closed containers and kept protected from moisture and foreign materials. Storage should be maintained at room temperature. The handling of PGL isocyanates is safe, provided the standard safety precautions for handling hazardous chemicals are established and followed. Refer to the material safety data sheet prior to use.

Component B (resin) is hygroscopic and containers must be kept closed to prevent absorption of moisture. Since Component B (Resin) contains tertiary amines, precautions to avoid skin contact and vapour inhalation should be observed.

Shelf Life: Minimum 6 months.

Clean up:
Owing to the chemical resistance of polyurethane products it is important to clean up any waste as quickly as possible. Methyl Proxitol is suitable for general cleaning.
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Wear suitable protective clothing, goggles and gloves at all times when cleaning.

Storage:
Store at temperatures between 15°C and 26°C in tightly closed containers to prevent moisture and other contamination. If exposed to moisture Component A will crystallise.

HEALTH AND SAFETY ADVICE

Refer to Polymer Group Safety Data Sheets for individual products. Also refer to the *Approved Code of Practice for the Safe Use of Isocyanates*.

Component A (Isocyanate) contains methylene bisphenyl diisocyanate (MDI). It is an irritant and allergic sensitiser. It is moderately toxic. Avoid contact with skin or eyes, avoid breathing vapour and use fresh air-supplied breathing apparatus when spraying.]

Component B (Polyol) is a mild irritant.

This kit is classified as hazardous according to criteria in the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.

RESIN COMPONENT:
HSNO Classification: 6.3B, 6.4A
HSNO Approval Number: HSR002644
Hazard and Precautionary Statements:

Hazard:
Causes skin irritation
Causes serious eye irritation

Prevention:
Read safety data sheet before use
Read Safety Data Sheet before use
Wash hands thoroughly after handling
Wear eye/face protection.
Wear protective gloves.
Avoid release to the environment.

HARDENER COMPONENT:
HSNO Classification: 6.5B, 9.1D
HSNO Approval Number: HSR002644
Hazard and Precautionary Statements:

Hazard:
May cause an allergic skin reaction
Toxic to aquatic life

Prevention:
Read safety data sheet before use
Avoid breathing dust, fume, gas, mist, vapours, spray.
Contaminated work clothing should not be allowed out of the workplace.
Wear protective gloves.
Avoid release to the environment.

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