POLYMER GROUP LTD

SOLUTIONS FOR EXTREME ENVIRONMENTS

Product Data Sheet

ENDURATHANE 8550SR *NEW!* SEMI-RIGID FOAM SYSTEM

PRODUCT DESCRIPTION

ENDURATHANE 8550SR *NEW!* is a medium density semi-rigid polyurethane moulding foam suitable for handpour or machine application.

ENDURATHANE 8550SR *NEW!* is an integral skin polyurethane foam, the prime characteristic is a sandwich structure consisting of a cellular core and discreet non-cellular surface layer. The core and surface layers consist of one and the same material and are formed in a single operation (ie not laminates).

PHYSICAL PROPERTIES

Components

Component A (isocyanate)	
Viscosity (20°C)	200cps
Flashpoint (ASTM D92)	230°C
Specific Gravity	1.25
Component B (polyol)	
Viscosity (20°C)	900cps
Specific Gravity	1.05

Reaction Profile	8550SR *NEW!*
Cream Time (20°C)	45 secs
Rise Time	105-120 secs
Tack Free Time	120-135 secs

RECOMMENDED USES

The combination of smooth skins and good mechanical properties at low gross weights coupled with good processing characteristics and wide design freedom, makes **ENDURATHANE 8550SR *NEW!*** suitable for applications such as headrests, armrests, furniture componentry, child restraint seats, and decorative items where a semi-rigid material offers ease of demould. Foaming pressures are very low and moulds are lighter and less expensive than those used for thermoplastic injection moulding.

NOTE: 8550SR *NEW!* contains a fire retardant additive and is considered self-extinguishing when the flame source is removed. However, as PU foam products may constitute a serious fire hazard if improperly used or protected, a careful assessment should be made to determine what potential hazard exists so that appropriate measures can be taken.

Cured Foam

Density, free rise	90-100 kg/m³
moulded	up to 180 kg/m³
Closed cells	20 to 25%

Mix Ratio

50A : 100B parts by weight

Pack Sizes

30 Kg Kit comprising 10 Kg Part A and 20 Kg Part B supplied in 20L pails

300 Kg Kit comprising 100 Kg Part A and 200 Kg Part B supplied in 200 litre drums

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APPLICATION DATA

ENDURATHANE 8550SR *NEW!* Part B *must be agitated prior to each use.*

Mould Materials

Endurathane 8550SR *NEW!* may be used with most common mould materials. Substrates must be clean and dry.

Ambient and surface temperatures should be above 15°C (moulds are usually run in the 30-40°C range). **Low temperatures will decrease rise of foam markedly.** Suitable release agents must be used.

Theoretical Yield

Always check yield and application rates. Adequate allowance must be made for overpacking, especially when cavities are narrow or foam has a long flow path.

1kg of foam occupies 0.010m³ (theoretical).

HANDLING PRECAUTIONS

All chemical materials should be used by trained personnel.

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 only in well ventilated areas.

Component B (polyol) contains HFC, a volatile blowing agent. It is a mild irritant. In confined spaces it may displace sufficient air to be hazardous. Provide ventilation or use only in well ventilated situations.

Always wear **eye protection** and suitable **protective clothing. Flush splashes to the skin or eyes with copious quantities of water.'**

Clean up

Owing to the chemical resistance of polyurethane products it is important to clean up any surplus as quickly as possible. Methyl Proxitol is suitable for general cleaning and methylene chloride can be used as a line flush. **Wear suitable protective clothing, goggles and gloves at all times when cleaning.** Greasing components beforehand assists with contamination removal.

Storage

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

Shelf Life

Minimum 6 months.

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