



Product Datasheet High Performance Casting System

Physical Properties of PTMEG series with BC8590A iso

Property	PT95	PT90	PT80	PT70	PT60
Shore A Hardness, (± 3)	95	90	80	70	60
Ultimate Tensile, PSI	3830	3300	2970	2520	2070
Elongation, %	480	550	730	700	700
Tear, Die C, PLI	540	490	390	293	244
Split Tear PLI	120	114	49	37	31
Gel Time, Minutes	7 - 10	7 - 10	7 - 10	7 - 10	7 - 10
Mold Temperature +/- 15°F	170°F (71°C)	170°F (71°C)	170°F (71°C)	170°F (71°C)	170°F (71°C)
Post-cure Time @ 175°F Hours	16	16	16	16	16
Mix Ratio by Weight (Polyol:Prepolymer)	100:70	100:62	100:42	100:34	100:30
Color	Black or Natural (white)	Black or Natural (white)	Black or Natural (white)	Black or Natural (translucent white)	Black or Natural (translucent white)

Preparation of Materials for Use

As the polyol freezes at 90°F it will normally be received and be stored frozen. Polyol drums should be melted out by heating - this is achieved most easily in a recirculating air oven set at 100F to 150F. Exact timing will depend on the starting temperature of the drums.

The isocyanate component may freeze if stored below 60°F - this will be identified visually by the isocyanate containing solid particles. Frozen isocyanate drums will need to be melted out before use, mixed, and brought back to the processing temperature. The recommended temperature for melting the iso is 130 to 150°F. If not frozen, isocyanate drums should be heated to processing temperature before use, preferably by heating in an air-recirculating oven.

At all stages of storage and heating, all drums should be left tightly sealed. At no stage should the oven temperature exceed 170°F and the materials should only be held at elevated temperatures for the minimum time necessary for melting and processing. Extended storage at elevated temperatures above the recommended storage temperatures may cause damage to the components.

For both polyol and isocyanate, it is necessary to melt the whole drum completely before taking material from the drum. Material taken from a partially melted polyol or isocyanate drum will not be suitable for use, and the remainder of the contents of the drum will also be unusable.



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The polyol component in the drum will require thorough mixing before any material is taken from the drum. This is best achieved by drum rolling. A speed of 20 rpm for 20 minutes should be a minimum. Material taken from an unmixed polyol drum will not be suitable for use, and the remainder of the contents of the drum will also be unusable. After mixing re-separation of the polyol component may occur in 1 hour (the harder grades separate more quickly than the softer grades), and re-mixing will be necessary.

The isocyanate will only require mixing once after melting from frozen. Liquid isocyanate will not re-separate once mixed. However, mixing the liquid isocyanate in the drum before use will ensure an even component temperature. A brief (~5 minutes) drum rolling will suffice to mix the isocyanate.

If after the heating/melting procedure the material temperatures are outside the processing temperature range, then they should be allowed to come to the processing temperature range before use. For machine and hand processing we recommend that the processing temperature should be 100°F for the polyol component and 75°F for the iso.

Safety: Read and understand MSDS's before use. Use only in well ventilated areas. Avoid contact with skin. Wear chemical resistant gloves and proper safety equipment. If swallowed, call physician immediately. For eye contact, flush with water for 15 minutes and get medical attention.

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