



# Environmentally Safe Polymers, Inc.

## Technical Data

Updated 11/2004

### **POLYSTEEL #89BM BATCH MIX ALIPHATIC INDUSTRIAL ELASTOMER**

#### **PRODUCT DESCRIPTION AND USAGE:**

PolySteel #89BM is a two component, one to one by volume batch mix aliphatic polyurethane coating that has a long pot life and moderate tack free time. PolySteel #89BM was specifically developed as a color stable top coat exhibiting high physical properties, outstanding chemical and solvent resistance, outstanding durability and color retention. PolySteel #89BM can be used to top coat most E.S.P. steel protection polyureas and polyurea hybrid polymers.

#### **COLOR:**

Standard color for PolySteel #89BM is white. Custom colors are also available. Please contact E.S.P., Inc. for more information on custom colors.

#### **PHYSICAL PROPERTIES**

#### **CHEMICAL RESISTANCE:**

Good hydrolytic stability up to 160°F. Water resistance is excellent. Good resistance to acids and hydrocarbon solvents. Fair resistance to oxygenated solvents, chlorinated solvents, and inorganic bases.

#### **TENSILE:**

ASTM D-412	Strength:	2500 psi
	Elongation:	400%
	Permanent Set:	15% max.

#### **HARDNESS:**

ASTM D-2240	Shore A	80 ± 3
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#### **TEAR RESISTANCE:**

ASTM D-624	Die C	250 pli
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#### **ABRASION RESISTANCE:**

Excellent.

#### **LIQUID PROPERTIES**

#### **COVERAGE:**

Sq. Ft./Gal./Mil	1280
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#### **SOLIDS:**

Weight:	85%
Volume:	80%

#### **VISCOSITY:**

Poly Component: Semi-fluid thixotropic liquid.  
Iso Component: 300-400 cps @ 77°F

#### **DENSITY:**

Poly Component: 11-12 lbs./gal. (S.G. 1.32-1.44)  
Depending on color.  
Iso Component: 8.16 lbs./gal. (S.G. 0.98)

#### **FLASH POINT:**

Above 81°F T.O.C.

#### **TOXICITY:**

Contains solvent that requires ventilation during application. Contains polyisocyanate that may be irritating to the skin and is toxic if inhaled as particulate matter. Material contacting the skin should be neutralized by washing with generous amounts of water.

#### **STORAGE STABILITY:**

One year in unopened original containers @ 40-90°F. Normally, containers should be used within one week after opening.

#### **APPLICATION**

#### **MIXING:**

Best results are obtained by pouring the Iso into the mixing container first. Then mix an equal volume of Polyol into the Iso.

#### **POT LIFE:**

Pot life of a one gallon quantity is 45 min at 70°F. Higher temperatures and larger quantities will shorten pot life. Lower temperatures and smaller quantities will lengthen pot life.

#### **CURE TIME:**

PolySteel #89BM will be ready for recoat in 12 hours at 70°F and 24 at 40°F. Allow 72 hours after final coat at 70°F before permitting traffic.

#### **EQUIPMENT:**

PolySteel #89BM can be applied by notched trowel, medium nap roller, squeegee, brush or spray.

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Our data is based on information from lab and field testing which we believe to be reliable and accurate. Environmentally Safe Polymers, Inc. makes no warranties, expressed or implied of the products use or its results, and assumes no obligation or liability in connection therewith.