



Technical Data

ElastoKast 85

Aromatic Polyurea Polymer for Casting

NB 1189

Revised: 011410

MANUFACTURER

GatorHyde Protective Coatings, Inc.
2210 South Highway 69
Wagoner, OK 74467
Phone: (918) 485-2835

PRODUCT DESCRIPTION:

ElastoKast 85 is a two component, 100% solids, 0 VOC's (Volatile Organic Compound), modified, hybrid polyurea. **ElastoKast 85** is designed to be a rapid curing elastomer cast system that can either be poured or pumped. The material does not require pre-heated molds or high temperature post curing. **ElastoKast 85** displays quick cure times and develops high early green strength. Parts can easily be de-molded within 5 minutes of casting. This elastomer bonds extremely well to properly prepared metal surfaces and can stand temperatures up to 425°F. The polymer offers good chemical resistance, water insensitivity, abrasion resistance and thermal stability at both high and low temperature ranges. Gel times are adjustable from 3 minutes to 30 seconds.

PRIMARY APPLICATIONS:

- RAPID MOLD CASTING
- METAL TO METAL BONDING
- FLAT SHEET MOLDING
- PIPELINE, OIL FIELD PART PRODUCTION
- INDUSTRIAL PART MANUFACTURING
- SHEAVE AND PULLEY CASTING
- PARTS REQUIRING HIGH/LOW TEMP. EXPOSURE

APPLICATION EQUIPMENT:

ElastoKast 85 can be applied by either hand mixing or through the use of a plural component pump and static mixing wand. (1:1 by volume) In addition manufacturer offers specially designed wand attachment system for low pressure spraying. See *manufacturer for recommended pump system and accessories.*

SPECIAL APPLICATIONS:

ElastoKast 85 can be used as a concrete coating for protection against chemical exposure, moisture migration, abrasive vehicle/foot traffic or as a membrane for industrial floors, and protective coating for secondary containment. Due to its chemical make-up, **ElastoKast 95** performs well in applications subject to intermittent

high temperatures and temperatures down to -40°F. Depending on the gel time, **ElastoKast 85** can be applied to vertical or horizontal surfaces by low-pressure spray. **Contact manufacturer for information on additional applications and gel times.**

AVAILABLE COLORS:

All material comes non-pigmented from the manufacturer, however, colors may be blended upon request. Contact the manufacturer for color carrier recommendations.

APPLICATION RECOMMENDATIONS:

ElastoKast 85 adheres extremely well to properly prepared metal surfaces. Prior to casting procedure, make sure that there is no loose dust, dirt, rust, grease, mold release agent, oil or any material that will interfere with the bonding process. It is also recommended that all metal surfaces be primed before applying **ElastoKast 85**. **Contact manufacturer for recommended primer.**

PHYSICAL PROPERTIES (1:1 BY VOL.):

TENSILE STRENGTH, PSI	ASTM D412	3178
ELONGATION, %	ASTM D412	651
100% MODULUS	ASTM D412	629
200%	ASTM D412	962
300%	ASTM D412	1243
TEAR STRENGTH, PLI	ASTM D624	295
HARDNESS, SHORE A	ASTM D2240	85
COMPRESSION SET (25% DEF)	ASTM D395	21.8%
BAYSHORE REBOUND	ASTM D2632	56.6%
FLEXIBILITY, 1/8" MANDREL	ASTM D1737	PASS
FLASH POINT, °F	PENSKY-MARTIN	200
TABER ABRASION, MG LOSS	ASTM D4060	11.5
CS 17 WHEELS	1KG, 1000 REVS	
TG (GLASS TRANSITION TEMP)	DMA	-40 F
VISCOSITY B-SIDE (75°F)	CPS	850
VISCOSITY A-SIDE (75°F)	CPS	400

TYPICAL PROCESSING PROPERTIES:

GEL TIME (ADJUSTABLE)	MINUTES	2
TACK FREE TIME	MINUTES	4
VOLUME RATIO	A:B (V:V)	1:1

APPLICATION NOTES:

ElastoKast 85 adheres well to sound steel substrates. All surfaces should be free of moisture, rust, loose particles, petroleum-based products, bond breakers and other contaminating debris. When utilizing a plural component pump, it is recommended that a 3/8" x 40 element-mixing wand be used in order to ensure proper mixing and backpressure.

CLEAN-UP/DISPOSAL:

Cured product may be disposed of without restriction. The un-cured isocyanate and resin portions should be mixed together and disposed of in a normal manner. "Drip free" containers should be disposed of according to local, state, and federal laws.

SAFETY & HANDLING:

MSDS will be mailed immediately upon receipt of a purchase order or upon request. All personnel should read and understand the safety recommendations. Keep uncured product away from children at all times.

LIMITATIONS:

ElastoKast 85 is an aromatic hybrid polyurea. While the physical properties may not be affected, the elastomer could yellow with exposure to UV or mercury vapor light. It is highly recommended to use a dark color for any applications requiring color stability. If color stability is mandatory, contact the manufacturer for recommendations. The chemical resistance chart should be consulted prior to any application. **Each individual user should check the product compatibility with their application requirements prior to full-scale use.** Samples are available upon request.

SHELF LIFE & STORAGE:

Six months in factory delivered, unopened drums. Keep away from extreme heat, freezing, and moisture. Proper storage temperature is between 60°F and 80°F. The components used in the **ElastoKast 85** formulations have been specifically formulated to withstand low temperature applications. The material can be stored at temperatures as low as 20°F with no gelation of the components. However, it is recommended to warm the material to minimum of 60°F before application.

PACKAGING:

ElastoKast 85 is available in 5 gallon pails or 55-gallon drums.

SHIPPING INFORMATION:

ElastoKast 85 can be shipped via most commercial truck lines. The shipping class is "55" polyurea spray. The "A" and "B" sides are unregulated.

CHEMICAL RESISTANCE:**ASTM D3912 MOD. 3 DAY IMMERSION**

Chemical	Result (25°C)
Acetic Acid (10%)	R
Brake Fluid (DOT3)	RC
Clorox® (10%)/Water	C,Dis
Diesel Fuel	R
Gasoline	R
Hydrochloric Acid (10%)	R
Hydraulic Fluid (oil)	R,Dis
Muriatic Acid (10%)	R
NaCl/Water (10%)	R
Potassium Hydroxide (10%)	R
Sodium Hydroxide (10%)	R
Sodium Bicarbonate	R
Sugar/Water (10%)	R
Sulfuric Acid (10%)	R,Dis
Sulfuric Acid (>22%)	NR
Vinegar (5%)/Water	R
Water	R
Xylene	C

R = Recommend = Little or No Visible Damage

RC = Recommend Conditional = Some Effect-Swelling, Discoloration

C = Conditional = Cracking—Wash Down Within One Hour of Spillage to Avoid Effects

NR = Not Recommended

Dis = Discoloration Only

WARRANTY:

The technical data and any other printed information furnished by GatorHyde are true and accurate to the best of our knowledge. **ElastoKast 85** conforms to in-house quality control procedures and should be considered free of defects. Due to the wide range of applications of this product, it is impossible to assume responsibility for any errors in regard to application, coverage, workmanship, over-spray, or injuries resulting from the use of this product. GatorHyde makes no warranty expressed or implied, of its products and shall not be liable for indirect or consequential damage in any event.