



Technical Data

ElastoKast 95

Aromatic Polyurea Polymer for Metal/Concrete

NB 1186

Revised: 011410

MANUFACTURER

GatorHyde Protective Coatings, Inc.
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PRODUCT DESCRIPTION:

ElastoKast 95 is a two component, 100% solids, no VOC's (Volatile Organic Compound), modified, aromatic, hybrid polyurea. **ElastoKast 95** is designed to be a rapid curing elastomer system that can either be poured or pumped. The material has been specifically formulated for use as an emergency airport runway repair polymer, capable of receiving heavy loads within 1 hour of installation. **ElastoKast 95** displays quick cure times and develops high early green strength. This polyurea bonds extremely well to properly prepared concrete and metal surfaces, withstanding intermittent 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 30 seconds to 3 minutes.

PRIMARY APPLICATIONS:

- AIRPORT RUNWAY SPALL REPAIRS
- COATING OVER GEOTEXTILE FABRIC
- BED LINING FOR COMMERCIAL DUMP TRUCKS
- SIDEWALK REPAIRS
- EMERGENCY PARKING DECK REPAIRS
- BONDING METAL TO CONCRETE
- LOW PRESSURE SPRAYING AS A PROTECTIVE COATING
- CUSTOM CAST PARTS PRODUCTION

APPLICATION EQUIPMENT:

ElastoKast 95 can be applied by either hand mixing or through the use of a plural component pump and static mixing wand. (1:2 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 95 is recommended for rapid spalled repair on commercial and government airport run-ways. It also provides 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 makeup, **ElastoKast 95** performs well in applications subjected to intermittent high temperatures and temperatures down to -30°F.

Additionally, **ElastoKast 95** can be used as an asphalt truck bed lining to eliminate hot asphalt from sticking to the truck bed surface. Depending on the gel time, **ElastoKast 95** can be applied to vertical or horizontal surfaces by low-pressure spray. **Contact manufacturer for information on additional applications and gel times.**

AVAILABLE COLORS:

- Yellow
- Concrete Gray
- Black

APPLICATION RECOMMENDATIONS:

ElastoKast 95 adheres extremely well to properly prepared metal or concrete surfaces. Prior to casting, caulking, or spraying 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 95**. **Contact manufacturer for recommended primer.**

PHYSICAL PROPERTIES (1:2 BY VOL.):

TENSILE STRENGTH, PSI	ASTM D412	3300
ELONGATION, %	ASTM D412	450
100% MODULUS	ASTM D412	1373
200%	ASTM D412	873
300%	ASTM D412	2392
400%	ASTM D412	2790
TEAR STRENGTH, PLI	ASTM D624	501
HARDNESS, SHORE A	ASTM D2240	98
HARDNESS, SHORE D	ASTM D2240	55
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	-47° 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)	1:2

APPLICATION NOTES:

ElastoKast 95 adheres well to sound metal, steel, and concrete substrates, however, all surfaces should be free of moisture, rust, loose particles, petroleum-based products, bond breakers and other contaminating debris, prior to installation. When utilizing a plural component pump, it is recommended that 3/8" x 24 or 3/8" x 40 element-mixing wands 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 95 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 own application requirements prior to full-scale use.** Samples are available upon request.

SHELF LIFE & STORAGE:

Six months in factory delivered, unopened containers. Keep away from extreme heat, freezing, and moisture. Proper storage temperature is between 50°F and 90°F. The components used in the **ElastoKast 95** formulations have been specifically formulated to withstand low temperature applications. If temperature of the material is below 32°F, it is recommended to warm the product to a minimum of 60°F before application.

PACKAGING:

ElastoKast 95 comes in 3-one gallon kits, 5 gallon pails (15 gal), or 55-gallon drums (165 gal).

SHIPPING INFORMATION:

ElastoKast 95 can be shipped via most commercial truck lines. The shipping class is "55". 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

Chemical

Chemical	Result (25°C)
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 95** 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.

Surface Preparation Procedure for Spalled Concrete:

All concrete surfaces requiring repair with **ElastoKast 95** must be structurally sound, and cleaned using high pressure washing or sand blasting in order to adequately remove the presence of all dirt, grease, oil, animal fats, sealants, coatings, paints, concrete laitance and other unforeseen contaminants. **Figure 1** below shows a typical concrete spall being sand blasted prior to actual installation of **ElastoKast 95**.

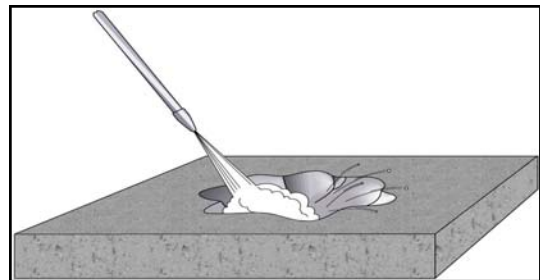


Figure 1

Note! If edges of the spall are not between 75° - 90°, then a vertical groove around the spall should be cut using an angle grinder with an abrasive or dry diamond blade. Cut the groove approximately 1-2 inches deep and chip out the spalled side of the saw cut. Once completed, vacuum or air blow out all remaining concrete dust and debris.

Priming Exterior Concrete Spalls

Once the concrete spall has been properly prepared, outside spalls should always be primed with GatorHyde's **PoxyPrime**, a two component primer that can be brushed

or sprayed onto the spalled area. **Note!** Always apply primer in a single thin coat application, totally covering all the exposed aggregate, but Do Not allow primer to puddle! Once primer has become tacky (but will not stick to your finger) the spall is ready for application of **ElastoKast 95**. **Note!** “Inside concrete spalls, not subjected to constant moisture or sub-zero freezer repairs, do not require priming with IsoPrime.”

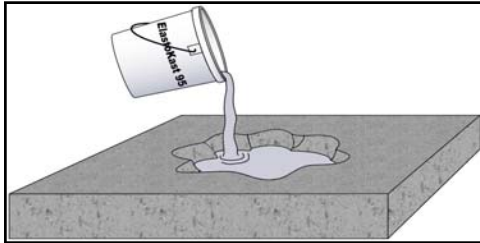


Figure 2

Product Placement

After primer has been allowed to properly tack out, mix up a calculated amount of **ElastoKast 95** as per specifications, and pour into spalled area. To hand mix material you need to mix 1 part A-side to 2 parts B-side and thoroughly mix with a high speed drill for 30-40 seconds. **Figure 2** above shows premixed material being poured into spall. **Note!** On shallow spalls 3/4” to 1-1/2” spall can be filled without the use of aggregate.

Product Placement

ElastoKast 95 can be installed by hand mixing and pouring or through the use of a plural component pump system capable of dispensing a 1:2 ratio material, such as the CONDOR Standard BT Pump, manufactured by GatorHyde. The product can also be applied using either pneumatic or manual, 450 ML caulking guns. In concrete spalls in excess of 2 inches in depth, 3/8 inch or 1/2 inch washed aggregate may be used as a filler to reduce material consumption and create higher compressive strengths. The picture to the right in **Figure 3** shows pre-washed rock being poured into the **ElastoKast 95** which has already been poured into the spall. The picture on the left in **Figure 3** shows the rock at the level of the material. **Note!** “Because of the rapid cure time of this product, **ElastoKast 95** should be poured in shifts, especially where spalls are deep. Once material has been poured into spall, immediately pour in aggregate till flush with the surface of the material.”

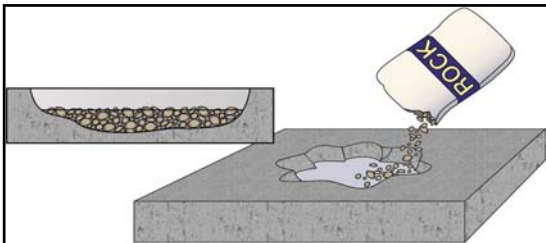


Figure 3

Product Placed In Lifts

Once material has been allowed to gel, (usually within 3-5 minutes) the spall is ready for the next application of **ElastoKast 95**. **Note!** **Figure 4** below shows additional product being poured directly over previous pour. **Figure 4** also shows level of material approximately 1/2 inch from top of spall. When pouring second batch of material, “Do Not Pour To Top Of Spall!”, and attempt to add additional rock as it will overflow the spall, creating a leveling problem.

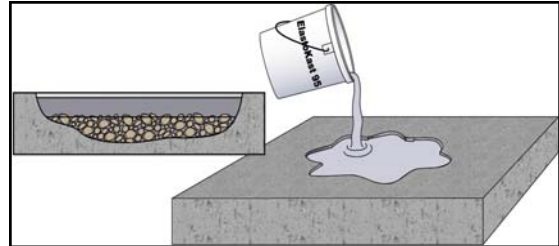


Figure 4

Final Stage Of Spall Repair

The picture to the right in **Figure 5** below shows the second layer of rock being added to the second layer of **ElastoKast 95** that was just poured into spall. **Figure 5** also shows second layer of material and rock still below surface of spall. After allowing the second step to gel (3-5 minutes) proceed with Step 3: **ElastoKast 95** is being poured on top of both layers of rock and **ElastoKast 95** (**Figure 6**) and in **Figure 6** you can see that the material has been poured flush with the surface of concrete. **“It is very important not to over fill the spall, if a smooth transition across the repaired spall is desired”.**

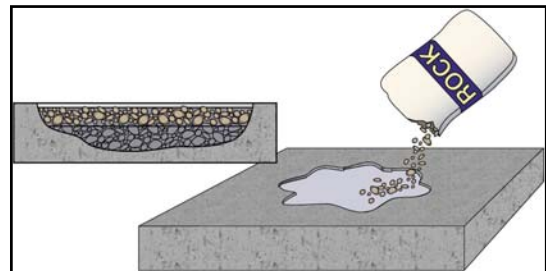


Figure 5

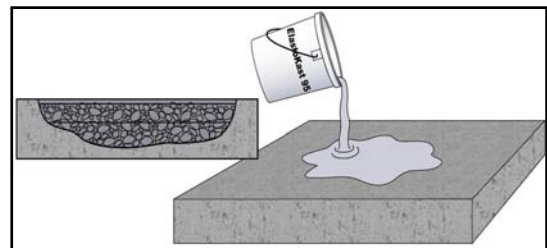


Figure 6

Open To Traffic

Once spall has been repaired, allow 60-90 minutes prior to exposure of heavy vehicular traffic such as forklifts and steel wheeled carts.