

## DESCRIPTION

**HM-VK™** is an ultra high-strength, handmix, 100% pure polyurea elastomer with extended pot life.

## FEATURES

- 100% solids, no solvents, and zero VOCs.
- Pot mixed.
- Compliant with FDA/USDA for incidental food contact.

## RECOMMENDED USES

- Blast mitigation.
- Clean room floors.
- Ballistic attenuation.
- Electrical potting.
- High strength polyurea adhesive.

## COLORS

HM-VK™ is available in SPI standard Neutral (honey) color.  
Note: In continuous full-light exposure, HM-VK™ will yellow over a period of time.

## PACKAGING

HM-VK™ is sold in 1 quart, 1 gallon, 5 gallon, 15 gallon, and 55 gallon kits. Orders greater than 1 gallon may have extended lead times.

## WET PROPERTIES

<b>Solids by Volume</b>	100%
<b>Solids by Weight</b>	100%
<b>Volatile Organic Compounds</b>	0 lbs./gal (0 g/l)
<b>Theoretical Coverage DFT</b>	100 sq. ft. @ 16 mils/gal
<b>Weight per gallon (approx.)</b>	8.6 lbs. (3.9 kg)
<b>Number of coats</b>	1 or more
<b>Mix Ratio (by volume)*</b>	4 "B" : 1 "A"
<b>Viscosity (cPs) @77°F (25°C)</b>	A: 40 ± 20 mPa.s B: 3000 ± 500 mPa.s
<b>Shelf Life Unopened Containers @ 60 - 90°F (15 - 32°C)</b>	6 Months

Minimum material/container temperature for application is 80°F (27°C).

## TEST INFORMATION

<b>Mandrel Bend Test ASTM D522-17</b>	Passed	Mandrel Size 1/4" Test Temp - 60°F (-51°C)
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## TYPICAL PHYSICAL PROPERTIES\*

Hand Mix	
<b>Tensile Strength ASTM D 638</b>	± 6,671 psi (46 mpa) avg
<b>Elongation ASTM D638</b>	± 506%
<b>Hardness (Shore A) ASTM D2240</b>	95 ± 5
<b>Hardness (Shore D) ASTM D2240-81</b>	44 ± 5
<b>Modulus 300% ASTM D412</b>	1395 psi (9.7 mpa)
<b>Exposure Temperature**</b>	-30° - +250°F (-34° - +121°C)

## CURING SCHEDULE

<b>Gel</b>	26 ± 2 min
<b>Tack Free</b>	30 ± 2 min
<b>Post Cure***</b>	12 hour
<b>Recoat</b>	12 hours

\* Above typical physical properties and curing schedule are based on 125 gram free film @ 77°F (25°C) (without ad mixture). Variables that will change the speed of reaction and cure time include:

- Total weight of product used
- Starting temperature of test product
- Air temperature
- Substrate temperature

\* All cured film properties are approximate since processing parameter, ad-mixture types, and quantities change physical properties of the cured elastomer. Elevated temperatures will accelerate the curing process and shorten the re-coat window.

\*\* Test performed in a dry, static environment.

\*\*\* Complete polymerization to achieve final strength can take up to several days or weeks, depending on a variety of conditions or product type. All samples for above tests were force cured 48 hours or aged for more than three weeks. **It is recommended that the user perform their own independent testing.**

## GENERAL APPLICATION INSTRUCTIONS

Apply HM-VK™ to only clean, dry, sound surfaces free of loose particles or other foreign matter.

\* HM-VK™ “A” and “B” mixing ratio may slightly change when ad mixture is introduced. Consult SPI technician.

HM-VK™ liquid components should remain sealed while not in use as exposure to atmosphere will reduce physical properties of cured product.

After introducing the “A” side to the “B” side the mixture should be folded in with a stir stick scraping the sides and bottom of container as you mix. DO NOT whip or mix with an electric mixer. Once thoroughly mixed pour in a stream onto prepared substrate in an overlapping figure 8 pattern to allow for even distribution. Spread with a notched trowel or preferred tool. Note: A porous substrate may create out-gas bubbles. Heating the substrate may help mitigate this.

Read and observe all precautions, instructions, and limitations that are included with all containers of HM-VK™.

## LIMITATIONS

HM-VK™ is for professional use only.

HM-VK™ must be stored at temperatures between 70° - 90°F (21° - 32°C). Storing this product at temperatures below 70°F (21°C) will cause the polymer to become very viscous.

Thoroughly mix HM-VK™ components at 80° - 100°F (27° - 38°C).

Avoid moisture contamination in containers. Containers should not be resealed if contamination is suspected, CO<sub>2</sub> created pressure can develop. Do not attempt to use contaminated material.

Note: The material supplied is a two component system (Component “A”/Component “B”) which is used to formulate this product. The quality and characteristics of the finished polymer is determined by the mixture and application of the two components.

## GENERAL SAFETY, TOXICITY, & HEALTH

Safety Data Sheets are available for this coating material. Any individual who may come in contact with these products should read and understand the S.D.S. **CHEMTREC EMERGENCY NUMBER 1-800-424-9300**

**WARNING:** Contact with skin or inhalation of vapors may cause an allergic reaction. Avoid eye contact with the liquid or spray mist. Hypersensitive persons should wear protective clothes, gloves and use protective cream on face, hands and exposed areas.

**CLEAN UP:** Use DPM or NMP.

**EYE PROTECTION:** Safety eye wear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield.

**SKIN PROTECTION:** Personal protective equipment for the body should be selected based on the task being performed; the risks involved, and should be approved by an industrial hygiene specialist before handling this product. Chemical resistant gloves complying with applicable health and safety standards shall be worn when handling this product. Cover as much of the exposed skin area as possible with appropriate clothing. Refer to safety data sheet (SDS).

**RESPIRATORY PROTECTION:** Harmful if inhaled and may cause allergy or asthma symptoms. Ensure adequate ventilation. If the respirator is the sole means of protection, use a full-face supplied respirator. Use respirators and components tested and approved under appropriate government standards such as OSHA 29CFR 1910.134, NIOSH (US), or CEN (EU). Consider the application and environmental concentrations when deciding if additional protective measures are necessary.

**INGESTION:** Do not take internally. It is believed that ingestion of polymeric isocyanates would not be fatal to humans, but may cause inflammation of mouth and stomach tissue.



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### WARRANTY & DISCLAIMER

Specialty Products, Inc. has no role in the manufacture of the finished polymer other than to supply its two components. It is vital that the person applying this product understands the product, and is fully trained and certified in the use of plural-component equipment. Specialty Products, Inc., an Alaska corporation, warrants only that the two components of this product shall conform to the technical specifications published in the product literature. The quality and fitness of the product are dependent upon the proper mixture and application of the components by the applicator. There are no warranties that extend beyond the description on the face of this instrument. Failure to apply the product within the parameters stated on this document shall void the warranty. SPECIALTY PRODUCTS, INC. MAKES NO WARRANTY OF MERCHANTABILITY OF THE PRODUCT OR OF FITNESS OF THE PRODUCT FOR ANY PARTICULAR PURPOSE. Specialty Products, Inc. makes no warranty as to the quality of any product modified, supplemented, tinted, or altered in any way after it leaves the manufacturing plant. Specialty Products, Inc. does not warrant that this product is suitable for use as a liner for potable water containers. Use of this product in a potable water container could be hazardous to health if it is improperly processed or applied. The liability of Specialty Products, Inc. for any nonconformity of the product to its technical specifications shall be limited to replacement of the product. The sole exclusive remedy of buyer, which is to have Specialty Products, Inc. replace any nonconforming product at no cost to buyer, is conditioned upon buyer notifying Specialty Products, Inc. or its distributor in writing of such defect within thirty days of the discovery of such defect. Specialty Products, Inc. shall not be liable for any direct, incidental, or consequential damages resulting from any breach of warranty. The data presented herein is intended for professional applicators or those persons who purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer. The aforementioned data on this product is to be used as a guide and is subject to change without notice. The information herein is believed to be reliable, but unknown risks may be present. Specialty Products, Inc. makes no warranties, expressed or implied, including patent warranties or warranties of merchantability or fitness of use, with respect to products or information set forth herein. Nothing contained herein shall constitute permission or recommendation to practice any invention covered by a patent without a license from the owner of the patent. Accordingly, the buyer assumes all risks whatsoever as to the use of these materials and buyer's exclusive remedy as to any breach of warranty, negligence, or other claim shall be limited to the purchase price of the materials. Failure to adhere to any recommended procedures shall relieve Specialty Products, Inc. of all liability with respect to the materials and the use thereof.

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