

TK-SUPER SEAL PE™

Super Adhesion Sealant

Item No. TK-2204

PRODUCT DESCRIPTION

TK-SUPER SEAL PE™ is an elastomeric moisture curing sealant designed for use in metal architecture, curtain wall construction and joints subject to movement. SUPER SEAL PE™ adheres to difficult surfaces and permits its use on anodized metal and coatings such as Kynar 500® PVDF. SUPER SEAL PE™ will not stain absorbent stone substrates like limestone and marble. Its unique polyether chemistry eliminates out-gassing on green concrete and protects against "sun tanning" or discoloration when exposed to ultraviolet light.

SUPER SEAL PE™™ is compatible with both the AIRMAX™ line of air/vapor/weather barriers and the CLIMATE TECH™ weather resistant barrier.

Features:

- Solvent-free, 100% solids will not shrink
- Non-slump, applies vertically and overhead
- 30 minute skin over
- No outgassing on damp surfaces
- Color stability, will not suntan
- Paintable within 24 hours
- +/- 50% joint movement

USES:

To fill and seal joints and seams in pre-cast concrete, block and masonry, curtain walls, expansion joints, exterior gypsum joints, cove joints, parapets, window and door frames, siding, and weather sealing.

SUPER SEAL PE™ is compatible with many construction materials such as: exterior gypsum, CMU, concrete, precast, block, brick, stone, masonry, Kynar 500® PVDF metal, aluminum and galvanized metal, wood, engineered plastics, PVC, glass, fiberglass and EPS foam. Always test for adhesion when in doubt of substrate compatibility.

APPLICATION PROCEDURES

PREPARATION:

Concrete Preparation:

Prior to application, remove any residual contamination by mechanical abrasion, sand blasting or power washing. On green concrete, remove all release agents, friable and loose concrete. Dry all visible and standing water prior to applying SUPER SEAL PE™. Install an appropriate backer rod, when needed, to avoid three-point bonding.

Metal Preparation:

Prepare all metal to ensure maximum adhesion. Remove all rust, scale, and residue by wire brushing to a bright metal sheen. Remove films, loose or inappropriate coatings and oils with an appropriate solvent.

Wood Preparation:

Wood should be clean, sound and dry prior to sealant application. Allow treated wood to weather for six months prior to application. Remove all coatings and paint (or test for compatibility) to ensure proper bonding. Do not use on fire retardant treated plywood.

TECHNICAL DATA	
Color:	Black
Gun Grade:	Zero slump
Viscosity:	750,000 cp +/- 150,000 cp
Density:	11.0 +/-0.2 lbs per gallon
Service Temperature(s):	-40°F to 200°F (-40°C to 93°C)
Tack Free Time (@ 70°F & 50% RH):	20-40 minutes
VOC Content:	< 19 g/l
A.I.M. Category:	This product is not currently regulated by 1999 Federal EPA VOC regulations

APPLICABLE STANDARDS
-ASTM C920, Type S, Grade NS, Class 50, Uses NT, T ₂ , M, G, A and O
-Federal Specification TT-S-00230-C Type II, Class A
-Corps of Engineers CRD-C-541, Type II, Class A
-Canadian Standards Board CAN 19, 13-M82
-SWR Institute Validated (Sealant Waterproofing and Restoration)
-AAMA 802.3-08 Type II, AAMA 803.3-08 Type I, and AAMA 805.2-08 Group C
-USDA Authorization for non-food contact

TESTING DATA	
Elongation at Break:	700%
Peel Strength:	25-30 psi
Tensile Strength:	150-200 psi
Hardness Shore A:	20-23
Lap Shear Strength:	150-175 psi
Low temp. flexibility:	Pass -10°F (-23°C) 1/4" mandrel
Shrinkage:	No visible shrinkage after 14 days
Weathering:	No cracking or chalking, slight matte finish after 2000 hours QUV "A" bulb. Durometer gain of 5 points.

See page 2 for additional Technical Data information

Joint Preparation:

Joint surfaces should be clean, dry and free from all contamination including dirt, oil, grease, tar, wax, rust and other substances that may inhibit the sealant's performance.

Joint Design:

Install all joint applications per ASTM and SWRI recommendations and guidelines. Joints shall be designed with a depth to width ratio of 1:2 (joint depth one-half the width).

If needed, control the depth of the sealant by using a polyethylene backer rod that is 25% larger than the joint opening at standard temperature. To prevent three-point adhesion use a backer rod or bond breaker tape to ensure proper joint movement and a long lasting weatherproof seal. Where the joint configuration will not permit a backer rod, TK Products recommends that an alternative bond breaker be used.

Joint Width in Inches (mm)	Joint Depth in Inches (mm)
1/4 - 1/2 (6-13)	1/4 (6)
1/2 - 3/4 (13-19)	1/4 - 3/8 (6-10)
3/4 - 1 (19-25)	3/8 - 1/2 (10-13)
1 - 2 (25-50)	1/2 (13)

*TK Products recommends an appropriate substrate primer to be used on high moving joints or dissimilar substrates which require increased adhesion properties.

APPLICATION:

Remove all dust, dirt, oil, loose paint, frost and other contamination from all working surfaces with alcohol. DO NOT USE petroleum solvents such as mineral spirits or xylene. Maintain SUPER SEAL PE™ at room temperature before applying to ensure easy gunning and tooling. Test and evaluate to ensure adequate adhesion. Carefully gun the sealant with a smooth, continuous bead. Tooling should be done within fifteen minutes of application.

For gypsum sheathing seam applications, a crown bead nozzle applicator tip should be used. Apply SUPER SEAL PE™ to a depth of 1/4", or an 80-100 mil crown bead. Continue bead past joint seam 1/4" onto gypsum sheathing, making certain that material is equal on both sides of the joint. To promote proper adhesion, "knock down" the material to disperse bead into the joint.

CLEAN-UP:

Wet sealant may be removed using a solvent such as alcohol. If cured, SUPER SEAL PE™ may be removed by abrading or scraping the substrate.

STORAGE:

Store original, unopened containers in a cool, dry area. Protect unopened containers from water, heat and direct sunlight. Elevated temperatures will reduce shelf life. SUPER SEAL PE™ will not freeze.

SHELF LIFE:

Shelf life is 12 months from manufactured date when stored at 70°F (21°C) with 50% relative humidity. High temperatures and high relative humidity may significantly reduce shelf life.

CURE TIME STUDY		
SKIN TIME	70°F / 50% RH	30°F / 65% RH
Porous Substrate:	32 min	110 min
Non-Porous Substrate:	32 min	110 min
CURE THROUGH TIME	70°F / 50% RH	30°F / 65% RH
Porous Substrate:	3 hours	<20 hours
Non-Porous Substrate:	3 hours	<20 hours

COMPATIBLE SUBSTRATES*	
<ul style="list-style-type: none"> • Kynar • Anodized Aluminum • Cut Concrete • Aluminum • Glass 	<ul style="list-style-type: none"> • Stainless Steel • Carbon Steel • FRP • Vinyl Siding • Brick (red)

*Adhesion testing should always be performed to confirm fitness for use with the substrate

CONDITIONS OF SALE/ LIMITED WARRANTY

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