PolySpec THIOKOL

TECHNICAL DATA SHEET – POLYSPEC® 196SL

Revised: 2/2017

DESCRIPTION

PolySpec 196SL is a high performance fluoroelastomer coating for use over Thiokol® Sealants where increased chemical resistance is required. It is recommended for resistance to many aggressive chemicals at elevated temperatures.

TYPICAL APPLICATION

PRIMER	Thiokol® 5050 Primer @ 3–5 mils (concrete) / 2–3 mils (steel)
BACKER ROD	Customer supplied
SEALANT	Thiokol 2235M
BONDING AGENT	PolySpec 196BA @ 1–2 mils
BASECOAT	PolySpec 196SL @ 20–25 mils WFT
TOPCOAT	PolySpec 196SL @ 20–25 mils WFT

PERFORMANCE DATA

TENSILE STRENGTH (ASTM D - 638)	900 psi
ELONGATION (ASTM D - 2370)	150%
PEEL STRENGTH (ASTM C-794)	100 lbs

BENEFITS

- Retains flexibility even as concrete moves
- Resistant to aggressive chemicals at service temperatures from -40°F to 400°F
- Resistant to ozone, sunlight and UV radiation, maintaining superior bond and flexibility in outdoor applications
- Achieves chemical resistance benefits of fluoroelastomer sealants at a lower cost
- Excellent chemical resistance to concentrated sulfuric acid, 73% nitric acid, phosphoric and hydrochloric acid; also resists petroleum products, many chlorinated solvents and aggressive chemicals such as aniline and phenol

RECOMMENDED USES

- Chemical containment dikes exposed to aggressive chemical spills
- Chemical process areas
  - Chemical plants
  - Semiconductor facilities
- Hazardous waste treatment, storage and unloading areas
- Truck and rail loading/unloading areas

GENERIC DESCRIPTION: Fluoroelastomer

STANDARD COLORS: Black

PACKAGING: 1-Quart Unit

MIX RATIO: 1R: 1H

POLYSPEC® 196SL

INDUSTRIAL JOINT SYSTEM, CHEMICAL RESISTANT COATING

ITW Engineered Polymers

COVERAGE:
20 ft² / gallon @ 40 mils WFT (includes two coats @ 20 mils WFT each)
16 ft² / gallon @ 50 mils WFT (includes two coats @ 25 mils WFT each)

STORAGE & INSTALLATION

STORAGE ENVIRONMENT	Dry area, 65-80ºF
APPLICATION TEMPERATURE, AMBIENT	50-95ºF
SERVICE TEMPERATURE	-40º-400ºF
APPLICATION TEMPERATURE, SUBSTRA TE	Minimum 5ºF above dew point
SHELF LIFE	6 months
POT LIFE, @ 77ºF	4 hours
FULL SERVICE, @ 77ºF	3-5 days

Material cures more slowly at cooler temperatures, and working time will be substantially reduced at higher temperatures. In hot weather, material should be cooled to 65ºF to 80ºF prior to mixing and application to improve workability and avoid shortened pot life. The data shown above reflects typical results based on laboratory testing under controlled conditions. Reasonable variations from the data shown above may result.

CONSIDERATIONS & LIMITATIONS

1. PolySpec 196SL is suited for indoor and outdoor use.
2. PolySpec 196SL is not recommended for ketone solvents and esters (such as ethyl acetate) or strong alkaline compounds.
3. Do not thin with solvents unless advised to do so by ITW Engineered Polymers.
4. Confirm product performance in specific chemical environment prior to use.
5. Prepare substrate according to “Surface Preparation” portion of this document.
6. Always use protective clothing, gloves and goggles consistent with OSHA regulations during use. Avoid eye and skin contact. Do not ingest or inhale. Refer to Material Safety Data Sheet for detailed safety precautions.
7. For industrial/commercial use. Installation by trained personnel only.

SURFACE PREPARATION

CONCRETE: Apply only to clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants.

- New concrete should be cured a minimum of 28 days.
- Concrete that has been contaminated with chemicals or other foreign matter must be neutralized or removed.
- Remove any laitance or weak surface layers.
- Concrete should have a minimum surface tensile strength of at least 300 PSI per ASTM D-4541.
- Surface profile shall be CSP-3 to CSP-5 meeting ICRI (International Concrete Repair Institute) standard guideline
- #03732 for coating concrete, producing a profile equal to 60-grit sandpaper or coarser. Prepare surface by mechanical means to achieve this desired profile.
- Moisture vapor transmission should be 3 a 24 hour time period, as confirmed through a calcium chloride test, as per ASTM E-1907. Quantitative relative humidity (RH) testing, ASTM F-2170, should confirm concrete RH results<75%.
- All surface irregularities, cracks, expansion joints and control joints should be properly addressed prior to application.

Refer to PolySpec Surface Preparation Guidelines for more details.

INSTALLATION STEPS

NOTE: *This product is typically installed as part of a Thiokol Sealant System. Refer to Thiokol 2235M or Thiokol 2235SL technical data sheet for detailed sealant application instructions.*

1. Using a clean white rag, apply a very thin (1–2 mils WFT maximum) layer of Bonding Agent directly to the exposed polysulfide sealant surface.
   NOTE: *Excess bonding agent can weaken adhesion*
2. Allow to dry for a minimum 16 hours.
   NOTE: *The 196BA will appear to dry instantly. The 16 hour dry time is necessary, however, for reaction between the polysulfide sealant and bonding agent to occur.*
3. Mask off the edges of the expansion joint using masking or duct tape, leaving 1/4” to 1/2” of concrete exposed.
4. PolySpec 196SL Component A Resin should be premixed prior to using due to possible pigment settling that may occur during transportation and storage. Using a broad spatula or paint stick, scrape the bottom and sides of the can thoroughly and feel for any undispersed materials clinging to the spatula.
5. Slowly pour Component B Hardener into the resin. Mix at low speed to avoid introducing substantial amounts of air into the liquid.
6. Cover the container and allow the catalyzed material to rest approximately 10 minutes. This will allow any air entrapped during mixing to escape.
   NOTE: *Keep the accelerated material covered when not in use. Air exposure increases the viscosity of the material.*
7. Apply a 20–25 mil WFT coat of PolySpec 196SL by brush or roller.
8. Allow the first coat to dry for 20–30 minutes before applying a second coat of PolySpec 196SL.
   NOTE: *Keep the accelerated material covered when not in use. Air exposure increases the viscosity of the material*.
9. Pull the masking tape 10–15 minutes after the second coat is applied.
10. Always wear gloves when using this product.

C-R:H / DOC PS196SL-TDS

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