

TWI-500™ DATA SHEET

POLYSULFIDE, SYNTHETIC-RUBBER BASED SEALANT FOR EXPANSION JOINTS & CORE PACKING IN CONCRETE ROADWAY, RUNWAY, DRIP PAD, TILT-UP, CURTAIN WALL AND UST CONSTRUCTION (Conforms To and Exceeds Federal Specifications: A 116.1-1960 & TT-S-227B)

- TWI-500™** is an elastomeric, two-component, polysulfide, synthetic-rubber based, permanent sealant, specifically designed for physically sealing expansion joints of PCCP, common to roadway, runway and Wood Treating Drip Pads.
- TWI-500™** can be used in situations of expansion or contraction joints and drill core packing subject to extreme structural movement, as well as for joining and sealing pre-cast tilt-up panels, concrete slabs, curtain wall construction, walkways, dams, reservoirs, swimming pools, window frames, coping, flashing, concrete vaults & USTs, etc.
- TWI-500™** exhibits long service life, extreme elasticity, high adhesion and reliable resistance to extreme weather; UV-light; aging; temperature extremes; normal structural movement; topical vehicular traffic; fresh, brackish & saltwater; electrolysis; petro-chemicals; aviation/diesel fuels; CCA, pentachlorophenol & other wood preserving chemicals.
- TWI-500™** cures in place, at ambient temperatures, to a firm, resilient, elastomeric, permanent seal; effectively bonding to metal, masonry, wood, concrete, glass, and other building and construction materials.
- TWI-500™** possesses excellent resilience and tensile characteristics over a wide temperature range; will not peel, crack or degrade, even after years of exposure to harsh environments.
- TWI-500™ (SL)** is Self-Leveling & pourable, for easy application on horizontal surfaces; and **(NS)** is Non-Sagging, for vertical or overhead joints & drill core/metal pipe pass-through. Both form absolute chemical, moisture and vapor barriers.

JOINT DIMENSIONS

Joint **depth** should not be less than ¼-inch. Depth should not exceed width. An approved non-impregnated joint filler can be used to obtain the desired depth, prior to filling.

SURFACE PREPARATION

Surfaces to be coated or sealed with **TWI-500™** should be dry, clean, free from all oil, grease, paint, corrosion, wax, tar, asphalt, loose aggregate, dirt, & other contaminants. (Masonry joints subject to excessive water immersion, should be primed with **TWI-500 MP™** masonry primer.)

MIXING INSTRUCTIONS

10 parts **TWI-500™ Base** are mixed with 1 part **TWI-500™ Curing Agent** (10:1 by weight), until completely uniform, and no traces of unmixed base compound or curing agent are visible. Mixing should be done at LOW speed to avoid excessive entrapment of air. Optimum mixing temperature is 75°F ± 5°. Higher temps reduce application life.

APPLICATION

TWI-500™ may be applied using a caulking gun, putty knife, or trowel. During application, the caulking gun nozzle is drawn along the bottom of the joint seam to completely displace all air with the joint bead.

TOOL & EQUIPMENT CLEANING

Equipment and tools for applying **TWI-500™** may be cleaned using Methyl Ethyl Ketone (M.E.K.), Toluene or chlorinated solvent, immediately after use or before material cures.

PACKAGING

TWI-500™ is packaged in 1-gallon cans, 5-gallon pails and 55-gallon drums. Custom packaging is available.

PHYSICAL PROPERTIES

APPLICATION

Base Compound Color White, Gray or Black
Curing Agent Color Black Paste
Mixed Color Gray or Black
Mixing Ratio (by weight) 10:1
Solid Content 96%
Usable "Pot" Life @ 3 Hours at 75°F/50% RH
Tack Free Time @ 24 Hours at 75°F/50% RH
Cure Time @ 72 Hours at 75°F/50% RH

PERFORMANCE

Coverage (½" joint x ¼" thick) @ 120-linear ft/gal
Allowable Joint Movement Rating >150%
Shrinkage Negligible
Peel Adhesion (100% Cohesive Break) 20 lbs/inch
High Temperature Resistance +220°F
Low Temperature Flexibility -65°F
Chemical Resistance:

	<u>Standard</u>	<u>High</u>
Hardness (Shore A)	25 - 30	45 - 50
Elongation	500%	400%

Tensile *Break* Strength & Ultimate Elongation
Initial at 75°F 175 psi/500% 250 psi/400%
2 Weeks at 160°F 180 psi/400% 275 psi/375%
1000 Hrs* 150 psi/300% 260 psi/350%
Tensile *Adhesion* Strength & Ultimate Elongation
Initial at 75°F 80 psi/200% 115 psi/160%
10 Days at 160°F 75 psi/180% 107 psi/145%
21 Day Water Immersion 70 psi/180% 100 psi/145%

*Atlas Twin Arc Weatherometer