
PRODUCT DESCRIPTION

Willcrete, an elastomeric concrete nosing material, is a two-part blend of polyurethane resins combined with graded aggregates that creates an impact resistant monolithic composite mortar once cured. This elastomeric concrete is an impact absorbing material that flexes with deck loads and acts as an expansion-contraction buffer between different materials. Willcrete utilizes specially formulated polyurethane technology that is engineered to provide a continuous watertight bond to most substrates. The result is a high performance monolithic sealing compound that prevents water intrusion.

Willcrete is specially designed to work in conjunction with the Willseal Wing Joint System glands and Willseal foam expansion joints. The glands consist of thermoplastic extrusions that can be supplied in continuous sizes and lengths to ensure a continuous seal. When combined, the Willseal Wing Joint System is a high performance horizontal expansion joint system, consisting of a compression-type seal with integrally perforated wings that are securely bonded into a concrete block-out with the shock absorbing Willcrete elastomeric concrete.

BASIC USES

Willcrete has been formulated to bond to concrete, aluminum, steel, and elastoprene rubber as part of the Willseal Wing Joint System. The Willseal Wing Joint System is used to seal expansion joints exposed to higher volume, low speed wheel and/or pedestrian traffic in parking structures, stadiums, plaza decks, and other concrete structures. Additionally, Willcrete is compatible with all Willseal foam expansion joints and can be used with them in various applications.

FEATURES & BENEFITS

Willcrete is a highly durable elastomeric concrete material, even under vehicular traffic loads and extreme weather conditions. It is resistant to UV exposure, extreme temperatures, and most chemicals normally present in vehicular structures. No primers are required for the application of Willcrete to achieve a tenacious bond to concrete, aluminum, and steel. After curing, Willcrete forms a hard, elastic, and abrasion resistant material that flexes with deck loads, providing a long lasting system seal when combined with the Willseal Wing Joint System glands.

- Pre-measured 3 component mix is user-friendly and easy to use
- Moisture insensitive formula
- Non shrinking

Combining the Willseal WJS glands with the Willcrete nosing material will provide a long-lasting, continuous watertight anchoring system that is ADA compliant and low profile. The rubber surface of the Wing Joint System has minimal top gaps, which reduces tripping hazards and the collection of debris in the joint. The specially designed low profile wing-seal does not rise above the concrete deck surface when installed, making it less likely to be damaged from normal, everyday traffic and aggressive snow-plowing. Additionally, the compartmentalized wing-seal provides secondary protection against leakage if the seal is punctured at the surface. The thermoplastic rubber of the Wing Joint System gland is highly puncture resistant, but is easily repairable if damaged.

- Fully compatible with the Willseal line of foam expansion joints

AVAILABILITY

Willcrete is available from your authorized Tremco or Willseal Sales Representative, Tremco or Willseal distributor or warehouse. Willcrete consists of 3 parts provided as a kit: Willcrete Part A – Binder, Willcrete Part B – Activator, and Willcrete Part C – Aggregate. For more information contact Customer Service by phone at 800-274-2813 or email custserv@willseal.com.

COLORS

Willcrete is available in Black.

LIMITATIONS

The concrete blockout and structural joint opening must be clean of foreign matter, sound, dry, and free of any laitance or curing agents. Prepare all surfaces, including metal surfaces by abrasive blasting to ensure they are free from foreign material and clean.

Installation temperature must be 40 °F (4.4 °C) and rising and at least 5 °F above the dew point. The maximum allowable concrete moisture content is 5%. Do not install in latex modified mortar or concrete. Always use Willcrete Primer when bonding to rubber.

WARRANTY

A repair or replacement warranty is available on all Willseal products. Visit <https://www.tremcosealants.com/warranties/> for details.

TYPICAL PHYSICAL PROPERTIES – BINDER ONLY

PROPERTY	TEST METHOD	TYPICAL RESULTS
Tensile Strength	ASTM D412	4,750 psi
Ultimate Elongation	ASTM D412	10%
Hardness, Shore D	ASTM D2240	78 ± 5
Tear Resistance	ASTM D624	200 pli
Water Absorption (max)	ASTM D570	3%
Heat Shrinkage (max)	ASTM D1299	2%
Compression Set	ASTM D395	48%

TYPICAL PHYSICAL PROPERTIES – BINDER & AGGREGATE MIXTURE

PROPERTY	TEST METHOD	TYPICAL RESULTS
Compressive Strength	ASTM D695	2,800 psi
Compressive Stress	ASTM D695	800 psi
Resilience @ 5% Deflection	ASTM D695	95%
Impact Resistance, -20°F (-29°C)	ASTM D420	No Cracks
Adhesion	ASTM D421	Concrete Failure
Cure Time (open to traffic)		24 hours*
Cure Time (chemical resistance)		7 days

**Willcrete will cure in 2-6 hours, but actual cure time will vary depending on temperature and other environmental factors. Do not allow vehicular traffic to pass over the joint in the first 24 hours; vertical deck deflection may cause Willcrete to debond from the rubber seal or concrete deck if it occurs before Willcrete is fully cured.*

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Willseal Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

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Tremco Construction Products Group (CPG) brings together Tremco CPG Inc. and its Dryvit and Nudura brands; Willseal; Prebuck LLC; Tremco Barrier Solutions, Inc.; Weatherproofing Technologies, Inc. and its Pure Air Control Services and Canam Building Envelope Specialists offerings; and Weatherproofing Technologies Canada, Inc.



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