KUT DURATHANE 920

Multiple - Component
High-Performance Polyurethane Sealant

PPC-29-1112

DESCRIPTION

KUT DURATHANE 920 is a multi component polyurethane sealant that produces a long lasting flexible joint seal. **KUT DURATHANE 920** bonds to most common construction materials without a primer. It is designed & tested for a joint movement of ± 50% in accordance with ASTM C 719.

KUT DURATHANE 920 is available in gun grade & pourable grades in various standard colours.

USES

KUT DURATHANE 920 is used for sealing joints in

- Concrete, Masonry, Marble, Granite & Brick
- Aluminum, Glass
- Stucco, Panel walls, Curtain walls
- Expansion wall joints, Precast units
- Perimeter window caulking
- Exterior insulation walls
- Tilt-up panel joints, Vinyl siding
- Interior and exterior applications.

ADVANTAGES

- Elastomeric, movement capability of ±50%, Withstands modern joint design parameters
- Extraordinary adhesion, No primer required on many construction materials
- Resistant to weather, airborne pollutants and chemicals, Nonstaining
- Excellent gunability over a broad temperature range, Speeds up application
- Long-lasting performance on all applications
- Use where aesthetics is also a primary concern
- Passes 4 hour - 4 inch fire and hose stream test when used with Special backing material

TYPICAL PROPERTIES

Primed for water immersion as indicated in ASTM C 920.

PROPERTIES	Gun Grade Std Shore A	Gun Grade High Shore A	Pouring Grade
Tensile strength, N/mm² ASTM D 412	1.2	2.0	1
Ultimate elongation at break, % ASTM D412	300	300	400
Stain and colour change (no visible stain) ASTM C 510	Passes	Passes	Passes
Rheological (flow) at 49°C, ASTM C639	No sag	No sag	Pourable
Hardness at standard conditions Shore A, ASTM C 661	25 ± 5	40 ± 5	25 ± 5
Hardness after heat ageing (maximum Shore A 50), ASTM C 661	20	35	20
Tack-free time, hrs. maximum (72 hrs.) ASTM C 679	<48 hrs	<48 hrs	<48 hrs
100% modulus, psi, ASTD D 412	60		
Bond durability *, on glass, aluminium, and concrete, ASTM C 719	± 25%	± 25%	± 25%
Weight loss after heat ageing	4.7%	4.7%	4.7%
Service temperature range °C	-40 to 82°C	-40 to 82°C	-40 to 82°C
Cracking and chalking after heat ageing, ASTM C 792	None	None	None
Artificial weathering, ASTM C 793			
Xenon arc after 250 hours	Passes	Passes	Passes
Artificial weathering			
Xenon arc after 2,000 hours	No surface cracking	No surface cracking	No surface cracking
Adhesion in peel, pli, min, 5 pli. ASTM C 794	>10		
Adhesion in peel after UV radiation through glass, min 5 pli, ASTM C 794	>10		
Pot Life @ 25°C	2 hrs 30 min	2 hrs 30 min	2 hrs 30 min

Concrete and aluminium primed with **KUT POLYSULFIDE PRIMER NO.3**; glass primed with **KUT POLYSULFIDE PRIMER NO.2.**

Test results area averages obtained under laboratory conditions. Reasonable variations can be expected.

Flammability: KUT DURATHANE 920 burns but does not readily support combustion.

STANDARDS

KUT DURATHANE 920 meets and complies to

- Federal Specification TT-S-00227E, Type II, Class A
- Corps of Engineers CRD-C-506
- ASTM C 920, Type M, Grade NS, Class 25, use NT, G, A, M, and O
- BS 6920
- ANSI/NSF 61

APPLICATION

Joint preparation: The number of joints and the joint width should be designed for a maximum of ±25% movement. The depth of the sealant should be 1/2 the width of the joint.

مصنع الخصوصية لكيماويات البناء
SPECIALITIES CONSTRUCTION CHEMICALS FACTORY

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In deep joints, the sealant depth must be controlled by Closed Cell Back-up Rod. Where the joint depth does not permit the use of back-up rod, a bond breaker (polyethylene strip) must be used to prevent three-point bonding.

To maintain the recommended sealant depth, install backer-rod by compressing and rolling it into the joint channel without stretching it lengthwise. Closed Cell Backer-Rod should be about 3 mm larger in diameter than the width of the joint to allow for compression. Backer-Rod becomes an integral part of the joint. The sealant does not adhere to it, and no separate bond breaker is required. Do not prime or puncture the backer-rod.

Surface preparation: Surfaces must be structurally sound, fully cured, dry, clean, free of dirt, moisture, loose particles, oil, grease, asphalt, tar, paint, wax, rust, waterproofing, curing and parting compounds, and membrane materials.

Concrete, stone, and other masonry: Clean by grinding, sandblasting, or wire brushing to expose a sound surface free of contamination and laitance.

Wood: New and weathered wood must be clean and sound. Scrape away paint to bare wood. Any coating that cannot be removed must be tested to verify adhesion of sealant or determine an appropriate primer.

Metal: Remove scale, rust, and coatings from metal to expose a bright white surface. Remove protective coatings as well as any chemical residue or film. Aluminum window frames are frequently coated with a clear lacquer that must be removed before the application of **KUT DURATHANE 920**. Any coating that cannot be removed must be tested to verify adhesion of sealant or determine an appropriate primer.

Priming: KUT DURATHANE 920 has good adhesion to most substrates without the use of a primer. Use **"KUT POLYSULFIDE PRIMER NO. 3"** for porous substrates such as concrete, wood etc., and **"KUT POLYSULFIDE PRIMER NO. 2"** for non porous substrates such as aluminum. Steel and glass.

A light, uniform coating of primer is sufficient for most surfaces. Porous surfaces require more primer, however, do not over-apply. Allow primer to dry before applying **KUT DURATHANE 920.**

Mixing: **KUT DURATHANE 920** is a multi component system and must be thoroughly mixed before use. The Part A container allows for the addition and mixing of Part B and color pigment if present into Part A. Pour the entire contents of Part B to Part A container using a spatula similar. It is imperative that Part B be mixed thoroughly with Part A. Before adding pigment, scrape sides of container to ensure complete mixing of Parts A and B. With a slow-speed (500-600 rpm) drill / paddle attachment, mix 4 - 6 minutes. The paddle blade must be kept below the surface of the sealant to avoid whipping air into the sealant. Transfer the entire contents of the pigment can into the mixed Part A and B. Use a spatula or knife to remove all the pigment from the container. Continue mixing until uniform color is achieved.

The induction time of 15 minutes is advisable at 20°c to 30°C ambient temperature, although it is not mandatory.

Note: For NSF 61 induction time is Mandatory

The pot life of mixed **KUT DURATHANE 920** is influenced by temperature. Consult **ASPEC** Technical Department for additional information.

Application Instructions: **KUT DURATHANE 920** is applied in vertical applications by a gun loaded at the job site. Joints should be filled from the bottom up to the exterior face by holding a properly sized nozzle against the joint bottom. Proper tooling ensures the correct bead configuration and a neat joint. Equally important, it ensures maximum adhesion to the sides of the joint. For best results, dry tool or dampen tool with a **KUT SOLVENT PU**. DO NOT use water or soapy water to tool. Avoid over tooling of sealant.

Horizontal surfaces: Use **KUT DURATHANE 920** Self leveling, Pourable grade sealant. Priming is required on all horizontal applications. For joints subject to puncture a stiff or high density backing material is required; cork or rigid non-impregnated cane-fiber joint fillers are suitable. Do not use open cell backer-rods on horizontal applications. For heavy traffic areas such as car parks, use of a non-sag High Shore A grade is advisable.

Clean up: Immediately after use and before sealant has cured, clean equipment with **KUT SOLVENT PU or PS.** Cured Sealant may be removed by cutting with a sharp-edged tool & thin films by abrading.

Curing: **KUT DURATHANE 920** cures by a chemically controlled reaction. Initial cure is within 24 hours, and complete cure takes approximately 7 days. Cure rates are dependent on temperature and humidity.

PRECAUTIONS

- Do not open containers until ready for use.
- **KUT DURATHANE 920** is packed in premeasured units; do not use part mixes.
- **KUT DURATHANE 920** should not come in contact with oil-base sealants, silicone sealants, polysulphides, or fillers impregnated with oil, asphalt, or tar.
- Do not allow uncured sealants to come into contact with alcohol-based materials or solvents.
- Do not apply epoxy-based coatings in the vicinity of uncured **KUT DURATHANE 920.**
- Do not apply **KUT DURATHANE 920** in the vicinity of uncured silicone sealants.
- Substrates such as copper, stainless, and galvanized steel typically require the use of primer; an adhesion test is recommended for any other questionable substrate.

PACKAGING

KUT DURATHANE 920 is available in 3 litre cans.

STORAGE: KUT DURATHANE 920 in original sealed containers when kept in dry conditions at 5°C - 27°C has a shelf life of 12 months.

HEALTH AND SAFETY

KUT DURATHANE 920 may cause skin, eye or respiratory irritation, may cause allergic responses. Ingestion may cause irritation. Intentional misuse by deliberately inhaling the contents may be harmful or fatal. Keep out of the reach of children.

Wear suitable protective gloves and eye/face protection. In case of contact with skin, wash immediately with soap and water. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. Hands must be thoroughly washed with soap and water before eating or smoking. Remove and wash contaminated clothing If inhalation effects occur, remove to fresh air. If discomfort persists or any breathing difficulty occurs, or if swallowed, seek immediate medical attention.

Cured sealant should not be burned off due to generation of toxic fumes. Empty containers should be disposed off in accordance with waste disposal regulations.

Distributor