APT ADVANCED POLYMER TECHNOLOGY

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Qualicaulk®

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1. General Description

Qualicaulk is an adhesive/sealant with high initial tack.

Uses: Qualicaulk is designed for sealing and bonding in building and construction industry, structural elastic bonding, and elastic bonding of rubber mats along with use as a crack filler/sealer for asphalt and concrete substrates and a wide variety of sport surfacing systems.

2. Safety Guidelines

KEEP OUT OF REACH OF CHILDREN. Avoid skin and eye contact. On contact, uncured sealant could cause irritation to skin and eyes. In case of eye contact, flush eyes with warm water for 15 minutes, call a physician. For skin contact, remove sealant with a paper towel. If swallowed, do not induce vomiting, call a physician. Qualicaulk is manufactured for professional use only. Refer to Safety Data Sheet (SDS) for further information.

3. Storage and Packaging

Qualicaulk is packaged in 20 oz foil sausages and sold by the case (16/20 oz sausages).

Shelf Life: 12 months in unopened packaging in a cool and dry storage place at temperatures between 41°F (5°C) and 77°F (25°C)

4. Installation Guidelines

Adhesion:

Qualicaulk has an excellent adhesion on almost all substrates. Qualicaulk has been tested on the following surfaces: steel, AlMgSi1, brass, electrolytic galvanized steel, AlCuMg1, flame galvanized steel, AlMg3, steel ST1403 and Kynar 500. Plastics that were tested include: polystyrene, polycarbonate (Makrolon®), PVC, polyamide, glasfiber reinforced epoxy and polyester (GRP). While producing plastics very often releasing agents, processing aids and other protective agents (like protection foil) are used. These should be removed prior to bonding. For optimum adhesion the use of Surface Activator is recommended.

NOTICE: bonding plastics like PMMA (ie Plexi® glass) and polycarbonate (ie Makrolon® or Lexan®) in stress loaded applications can give rise to stress cracking and crazing in these substrates. The use of Qualicaulk is not recommended in these applications. There is no adhesion on PE, PP, PTFE (Teflon®), and silicone.

Features and Benefits

- ✓ Universal caulking material
- ✓ Excellent adhesion on porous and non-porous substrates
- ✓ 500% Elongation
- ✓ High green strength, quick build-up of end strength, high shear strength after full cure
- ✓ Easy to tool and finish
- ✓ Color stable and UV stable
- ✓ Free of isocyanates, solvents, halogens, and acids

Substrates:

Surface Preparation: clean, dry, free of dust and grease

- It is expected that the product will adhere and perform in uncontaminated joints with most common construction substrates, without the use of a primer.
- Porous surfaces in water loaded applications should be primed.
- Surface Activator may be used to pretreat non-porous surfaces.
- A preliminary compatibility tests pervious to application is always recommended.

Resistance to chemical agents:

Good resistance to water, aliphatic solvents, mineral oils, grease, diluted inorganic acids and alkalis. Poor resistance to aromatic solvents, concentrated acids, chlorinated hydrocarbons.

Joint dimensions:

Minimal Width: 1/4”
Maximum Width: 1 3/16”
Minimum Depth: 1/5”
Recommendation: width = 2 x depth

Bonding Layer:

A bonding layer of at least 5/64” to achieve a bond with maximum elastic properties is recommended.
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Application:

Method: Manual- or pneumatic caulking gun. Application temperature: 40°F to 90°F. Cleaning: with IPA immediately after use and before curing. Repair with: Qualicaulk.
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Remarks:

- Pre-testing for adhesion is intended to eliminate potential problems. This testing will aid in determining the proper surface preparation method.
- May be painted, however due to the large number of paints and varnishes available we strongly suggest a compatibility test before application. The drying time of alkyd resin based paints may increase.
- Can be applied to a wide variety of substrates. Due to the fact that specific substrates such as plastics, like polycarbonate, etc. may differ from manufacturer to manufacturer. Recommend preliminary compatibility tests.
- Porous surfaces in water loaded applications should be primed.
- Lower temperatures and humidity will extend curing time.

5. Limitations

- Contact with plasticizer containing plastics can lead to incompatibility, such as discoloration or loss of adhesion.

6. Technical Data

VOC	60 g/L	Directive 2004/42/EG
Sag	No Sag	ASTM C 639
Skin Formation	5 minutes	@ 75°F & 50% relative humidity
Tack-free time	20 minutes	ASTM C 679
Cure time	24-48 hrs – 1/4” diameter bead	@ 75°F & 50% relative humidity
Hardness – Shore A	45-55	ASTM C 661
Tensile Strength	400 psi	ASTM D 412
Elongation	500%	ASTM D 412
Movement capability	+/- 25%	ASTM C 719
Stain and color change	Passes	ASTM C 510 (mortar)
Artificial weathering	No cracking	ASTM C 793
Application temperature range	-35°F to 140°F	

Consult the Safety Data Sheet for more details

For complete and latest warranty and product information, please visit www.advpolytech.com