QUICSEAL 161

Expo-Flex PU

Excellent adhesion on almost any surface, with or without special primers

No thinning is required but in any case it can be thinned with QUICSEAL Solvent 01

Consult QUICSEAL.

Excellent weather and UV resistance. The white color reflects much of the solar energy and so reduces the internal temperature of the buildings considerably

Excellent thermal resistance, the product never returns soft, Max service temperature 80°C, Max shock temperature 200°C

Resistance in the cold: the film remains elastic even down to -40°C

Excellent mechanical properties, high tensile and tear strength, abrasion resistance

Good chemical resistance

Resistant to root penetration (with corporation of QUICSEAL Fabric)

Moisture vapor transmission: the film breaths so there is no accumulation of humidity under the coat

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DESCRIPTION
QUICSEAL 161 is one component low viscosity polyurethane fluid that cures with the humidity in the atmosphere. It produces an elastic strong film with excellent adhesive adhesion to different surfaces. The product is based on elastomeric hydrophobic polyurethane resin plus special inorganic fillers that provide the material with chemical, UV, Mechanical and Thermal Resistance. Suitable for exposed and concealed applications.

COMPLIANCE – CE
The product complies with the EU guideline, EOTA (European Organization of Technical Approval).

RECOMMENDED FOR
Waterproofing and protection of:
- Roofs
- Platforms of bridges
- Basement walls
- Verandas and balconies
- Bathrooms and planters
- Car parks and stadium stands
- Bridge decks, Tunnels, etc

TYPICAL APPLICATIONS
Concrete, fibrous cement, mosaic, cement roof tiles, old (but well adhered) acrylic and asphalt coats, wood, corroded metal, galvanized steel.

CONCRETE SUBSTRATE CONDITIONS (STANDARD)
- Hardness: R_{28} = 15MPa
- Humidity: W <10%
- Temperature: from 5°C - 35°C
- Relative humidity: < 85%

SURFACE PREPARATION
The substrate must be clean and dry, free from loose particles and laitance that may affect adhesion of the applied topping. Unsound surface must be removed mechanically by shot-blasting or scabbling. Concrete surfaces shall be textured to provide good bonding.

Do not apply the coating unless concrete has cured for at least 28 days or fully cured. The moisture content of the concrete surface must be below 5%.

PRIMING
Prime absorbent surfaces like concrete, cement screed or wood with QUICSEAL 133. Prime surfaces like bitumen- and asphalt- felts with QUICSEAL 133. Prime non-absorbent surfaces like metal, ceramic tiles and old coatings with QUICSEAL 134. Allow the primer to cure according its technical instruction.

WATERPROOFING MEMBRANE
Stir well before using. Apply QUICSEAL 161 by roller or brush, or airless spray, until all surface is covered. Reinforce with QUICSEAL Fabric at critical areas, like wall-floor connections, chimneys, pipes, waterspouts (siphon), etc. For detailed application instructions with the QUICSEAL Fabric, contact our technical department. After 12 hours (not later than 36 hours) apply another layer of the QUICSEAL 161. If desired apply a third layer of the QUICSEAL 161.

<u>As an Intermediate Waterproofing Traffic Deck System</u>
Broadcast 0.3 – 0.8mm clean and dry silica sand over the 3rd layer of QUICSEAL 161 while it is still wet. The sand broadcast shall be done to refusal, coverage approximately 3kg/m².

FINISHING
For a color stable or vehicular abrasion resistant surface, apply at least two layers of QUICSEAL 374 (topcoat) over QUICSEAL 161. To achieve optimum adhesion, it is highly recommended to apply QUICSEAL 374 within 24 hours after application of QUICSEAL 161. Please refer to the Technical Datasheet of QUICSEAL 374 – Wear Resistance Polyurethane Coating for more information.

PRECAUTIONS
QUICSEAL 161 contains isocyanates. See information supplied by the manufacturer. Please study the material Safety Data Sheet.

CONSUMPTION
Minimum Total Consumption:
0.7 – 1kg/m² for 1 coat application
- Wet film thickness 0.5 – 0.7 mm per coat
- Dry Film Thickness 0.45 – 0.65 mm per coat

CLEANING
Clean tools and equipment first with paper towels and then wipe by using QUICSEAL Solvent-01.

PACKAGING
25kg

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Classification According to EOTA Guideline (European Organization of Technical Approval)

REQUEST	CLASSIFICATION
Working life	W2
Climatic zone	M & S
User load	P1 to P3
Roof slope	S1-S4
Minimum surface temperature	TL3
Maximum surface temperature	TH3
Reaction to fire	Class E

The Liquid Product: +95% dry matter in Xylene.

PROPERTY	UNITS	SPECIFICATION
Viscosity (BROOKFIELD) (ASTM D2196-86, at 25°C)	cP	2500-3500
Specific weight (ASTM D1475 / DIN 53217 / ISO 2811, at 20°C)	Gr/ cm^3	1,3-1,4
Flash point (ASTM D93, Closed cup)	°C	> 42
Tack free time at 77 deg F (25°C) & 55% RH	Hours	6
Recoat time	Hours	6 to 24

THE FILM:

Service temperature	°C	-40 to 80
Max.Temperature short time (shock)	°C	200
Solar Reflectance (SR) on white coloured membrane (ASTM E903-96)	-	0.87
Solar Emittance (ε) on white coloured membrane (ASTM E408-71)	-	0.89
Hardness ASTM D2240 / DIN 53505 / ISO R868	Shore A	70
Tensile Strength at break at 23°C ASTM D412	$(N/mm)^2$	> 4.0
Percent Elongation at 23°C (ASTM D412 / DIN 52455)	%	> 500
Water Vapour Transmission (ASTM E96 Water Method)	Gr/ m^2.hr	1.0
Water Penetration at 4 Bar for 6 hours (DIN 1048 Part 5)	mm	No water penetration
Adhesion Concrete (ASTM D4541)	Kg/cm^2 (N/mm^2)	> 20 (> 2)
QUV Accelerated Weathering Test (4hr UV, at 60°C (UVB-Lamps) & 4hr COND at 50°C (ASTM G53)	-	Passed (2000 hours)
Hydrolysis 8% KOH, 15 days@ 50°C	-	No significant change in elastomeric property
Hydrolysis H20, 30 days-cycle 60-100°C	-	No significant change in elastomeric property
HCl PH=2, 10 days @ RT	-	No significant change in elastomeric property

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Construction Material Fire Class (DIN 4102-1)	-	B2
Resistance to Sparks and Radiating Heat (DIN 4102-7)	-	Passed
Rain Stability Time Conditions: 20°C, 50% RH	-	4 hours
Light Pedestrian Traffic Time Conditions: 20°C, 50% RH	-	12 hours
Final Curing Time Conditions: 20°C, 50% RH	-	7 hours
Chemical Properties	Good resistance against acidic and alkali solutions (10%), detergents, seawater and oils.	

SHELF LIFE

QUICSEAL 161 can be kept for minimum 12 months in the original unopened pails at a temperature of 5°C - 25°C under shade and in cool & dry environment. Protect the material against moisture and direct sun-light

IMPORTANT NOTES

The information set forth herein is furnished in good faith and is based on technical data that QUICSEAL considers to be reliable. This information is intended for used by persons having technical skill and at their own discretion and risk. Information contained in this product sheet conforms to the standard detail recommendations and specifications for the installation of QUICSEAL products as of the date of publication of this document. QUICSEAL makes no other warranties and assumes no liability, expressed or implied, as to the architecture, engineering or workmanship of any project. To ensure that you are using the latest, most complete information, contact ARDEX-QUICSEAL

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Reference No. QS161/020221 T