

REC FLEX 330 PU

DUAL COMPONENT POLYURETHANE JOINT SEALANT

PRODUCT DESCRIPTION

REC FLEX 330 PU is a two-component, elastomeric polyurethane caulking and sealing compound. It cures at normal temperatures to form a tough, flexible elastomeric seal with excellent adhesion to masonry, concrete, metal, wood, and other common construction substrates. **REC FLEX 330 PU** accommodates repeated expansion and contraction and remains resilient under daily and seasonal temperature variations. The cured sealant provides excellent resistance to water, chemicals and solvents and can accommodate joint movement of up to $\pm 25\%$.

PRIMARY APPLICATIONS

REC FLEX 330 PU is suitable for sealing construction and movement joints, including:

- Panel and curtain wall joints.
- Masonry joints.
- Building and structural joints.
- Bridge abutments.
- Copings.
- Concrete construction joints.
- Foundation joints.
- Water reservoirs and dams.
- Patios, plazas and sidewalks.
- Floors and traffic-bearing horizontal joints.
- Roadways and other pedestrian/vehicular traffic areas.
- Joints subject to prolonged water exposure.
- Joints between similar and dissimilar construction materials.
- Glazing and general caulking applications.

FEATURES & BENEFITS

- Two-component, elastomeric polyurethane sealant.
- Excellent adhesion to concrete, masonry, metal and wood.
- Accommodates joint movement up to $\pm 25\%$.
- Non-sag, gun-grade formulation for vertical joints.
- Self-leveling grade suitable for horizontal joints.
- Suitable for traffic-bearing applications.
- Excellent resistance to water and moisture.
- Good chemical and solvent resistance.
- Resistant to splash and spill contact with jet fuel.
- Suitable for dynamic joints exposed to chemicals.
- Maintains flexibility over a wide service-temperature range.
- 100% solids formulation.

TECHNICAL INFORMATION

Appearance	Grey/Brown
Solids Content	100%
Specific Gravity (mixed)	1.40
Tensile Strength (ASTM D638)	3.68–4.91 MPa
Elongation at Break (ASTM D638)	500–550%

Shore A Hardness (ASTM D2240)	25–30
Joint Movement Capability	±25%
Pot Life	Approx. 2 hours
Tack-Free Time	12–24 hours
Service Temperature	–45°C to +87°C

Note: Typical values are provided for guidance and may vary depending on test conditions, substrate, mixing, curing conditions and batch.

APPLICABLE STANDARDS

REC FLEX 330 PU is in compliance with ASTM C920 – Type S, Grade NS, Class 35, Uses NT, M, A and O, and ASTM C1248.

PACKAGING

REC FLEX 330 PU is available in different packaging sizes (20 kg, 40 kg, 50 kg) as a complete kit of both components collectively.

SHELF LIFE

Shelf life of **REC FLEX 330 PU** is 12 months in the original, unopened and properly stored packaging.

DIRECTIONS FOR USE

a. SURFACE PREPARATION

New concrete or masonry should normally be allowed to cure for 28 days before application. The joint surfaces must be clean, sound, dry, and free from dust and loose particles. Therefore, remove all contaminants, such as previous sealants, form-release agents, grease, oil, Asphalt and bituminous materials, dirt, dust and weak or friable material. Mechanical methods such as scarifying, wire brushing or sanding may be used as appropriate. For metal substrates, remove protective coatings such as lacquer or oil using a suitable solvent such as MEK or xylene, where compatible with the substrate.

Note: Do not apply **REC FLEX 330 PU** when the sealant, air or substrate temperature is below 4°C.

b. PRIMING

Priming is generally not required on common, properly prepared construction substrates. However, a primer may be required where:

- Continuous water immersion is expected
- The substrate is difficult to bond
- Specific substrate conditions require additional adhesion
- Project specifications require a primer

Where required, use **REC FLEX 330 PU PRIMER**.

Mix the primer components and allow approximately 2 hours curing before applying the sealant. A field adhesion trial is recommended to establish the suitability of the primer and substrate.

c. JOINT DESIGN

The minimum joint width should generally be four times the anticipated movement, but not less than 6.4 mm (1/4 inch). While maximum recommended joint width is 25 mm (1 inch). For joints deeper than approximately **13 mm**, use a suitable flexible, non-asphaltic and non-oil-impregnated backing material.

Table 2 Recommended Sealant Depth

Joint Width	Recommended Sealant Depth
Up to 13 mm (1/2")	Approximately equal to joint width
13–25 mm (1/2–1")	Approximately 13 mm (1/2")

For traffic-bearing applications, a round synthetic-rubber backing rod with a Shore A hardness equal to or greater than that of **REC FLEX 330 PU** is recommended. The backing material should prevent adhesion of the sealant to the bottom of the joint. Where necessary, polyethylene film may be used as a bond breaker.

d. MIXING

Thorough mixing of Components A and B is essential to achieve optimum performance. Remove the activator/component B from the base/component A container. Remove any polyethylene sheet or tray present in the container. Pre-mix Component A using a slow-speed drill at approximately 250–300 rpm with a suitable Jiffy-type mixing paddle. Add Component B to Component A. Mix for approximately 3–4 minutes until a completely uniform color and consistency are achieved. Periodically scrape the sides and bottom of the container and the mixing paddle to ensure complete mixing.

NOTE: Do not mix Component A and Component B from different production batches or shipments. Components supplied as a matched set should be used together. Avoid excessive mixing speed, which can introduce air into the sealant.

e. APPLICATION

REC FLEX 330 PU provides approximately 1–2 hours of working time under normal conditions. Do not mix more material than can be applied within the available working time. The mixed sealant can be applied using standard suitable caulking equipment.

Application procedure consists of following steps:

1. Fill the joint from the bottom upward or from the inside outward.
2. Ensure the nozzle reaches the bottom of the joint.
3. Use the largest practical nozzle that can be inserted into the joint.
4. Apply continuously to avoid air entrapment.
5. Ensure complete contact between the sealant and joint faces.
6. Tool immediately after application to achieve proper contact and a smooth finish.
7. Dry tooling is preferred.

For horizontal joints where the formulation is used as the self-leveling grade, the material may be poured directly into the prepared joint.

g. CURING

Curing rate is affected by temperature, humidity, joint dimensions, substrate and other environmental conditions. For continuous water immersion, allow the sealant to cure for at least 7 days at approximately 21°C before filling or exposing the joint to water.

h. PRECAUTIONS & LIMITATIONS

- Store between 10°C and 32°C.
- Protect components from moisture.
- Do not mix components from different shipments or unmatched batches.
- Do not apply below 4°C.
- Allow adequate curing before continuous water immersion.
- **REC FLEX 330 PU** is not recommended for swimming-pool chlorinated-water exposure based on the supplied product data.
- For unusual substrates or aggressive chemical exposure, perform a compatibility and adhesion test before full-scale application.

i. CLEANING OF TOOLS

Clean tools and equipment immediately after application using xylene or acetone, where compatible with the equipment and applicable safety requirements. Remove spills and uncured material while still wet using the same suitable solvent. Once cured, the material should generally be removed mechanically.

COVERAGE

Table 2 Approximate theoretical coverage

Joint Width	Joint Depth	Approximate Coverage
6.4 mm (1/4")	6.4 mm (1/4")	25 m/L
9.5 mm (3/8")	9.5 mm (3/8")	8 m/L
12.7 mm (1/2")	12.7 mm (1/2")	6.2 m/L
15.9 mm (5/8")	12.7 mm (1/2")	4.9 m/L
19.0 mm (3/4")	12.7 mm (1/2")	4.1 m/L
22.2 mm (7/8")	12.7 mm (1/2")	3.5 m/L
25.4 mm (1")	12.7 mm (1/2")	3.1 m/L

Note: Coverage values are approximate and intended for estimating purposes only. Actual consumption depends on joint geometry, application technique, substrate conditions and material wastage.

STORAGE

Store in the original, unopened packaging in a cool, dry location between 10°C and 32°C. Protect containers from moisture, direct sunlight and excessive heat.

SAFETY

Use appropriate personal protective equipment during mixing and application, including suitable gloves and eye protection. Provide adequate ventilation during application and cleaning.

QUALITY STATEMENT

All our products are manufactured to comply with our internal QA/QC program and quality management system to ensure consistency and quality.

DISCLAIMER

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