

Ply-Guard UR (Joint Filler)

Technical Bulletin

Ply-Guard UR (Joint Filler) is a fast set, two-component self-leveling polyurea joint filler that is formulated to protect industrial concrete floor joints from spalling under hard wheels or heavy machinery.

Ply-Guard UR (Joint Filler) is compliant with USGBC LEED green standards and qualifies for *IEQ credit 4.1: Low-Emitting Materials—Adhesives & Sealants*.

Key Features

- Excellent Chemical and Abrasion Resistance
- Non-Staining
- Non-Foaming
- High Color Stability
- Contains 0 VOCs

Material Processing

Ply-Guard UR (Joint Filler) A and B sides should be thoroughly mixed prior to use to ensure uniform color and chemical blend. Take care not to incorporate excess air during agitation. Material temperature should be 60° F or greater at time of installation.

Ply-Guard UR (Joint Filler) should be dispensed through a two-component, powered dispensing pump. Before loading materials into pump, ensure that pump tanks, lines, and dispenser are clean of any residual material or contaminants.

Technical Data

Hardness, Shore A:	86±2
Tensile Strength, psi:	1,650
Tear Resistance, pli:	390
Ultimate Elongation, %:	450
Solids, %:	100
VOCs, g/l:	0.0

Application Data

Substrate Temperature, °F:	40-110
Material Temperature, °F:	60-100
Gel Time, sec:	60-80
Shave Time, mins:	20
Return to Service, hrs:	1-3
Mix Ratio:	1:1

Shelf Life: Six months in original, unopened containers

Packaging: Available in 10 gallon kits, containing 5 gallons of A side and 5 gallons of B side

Storage: A and B components are very stable mixtures. Store between 60—95°F in tightly sealed containers; material is moisture sensitive.

For Professional Use Only

Ply-Guard UR (Joint Filler) is for industrial use only. Avoid contact with eyes and skin, and do not inhale or ingest. Be sure to read the Safety Data Sheet in its entirety.

FOR ADDITIONAL APPLICATION & EQUIPMENT RECOMMENDATIONS, PLEASE CONSULT YOUR POLYSET TECHNICAL REPRESENTATIVE.

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Joint Surface Preparation

Concrete should be cured as long as possible before beginning to fill joints. A minimum of 30 days is necessary to allow for adequate adhesion. The American Concrete Institute recommends waiting 90 days to minimize the risk of separation due to additional slab shrinkage. The floor must be allowed to reach the final ambient temperature for at least 7 days before filling joints (longer if possible for freezer applications).

Once the concrete has been allowed to adequately cure and reach ambient operating temperature, the joints must be cleaned and prepared. Joints must be free of dirt, dust, debris, sealants, moisture or any other contaminants. Polyset recommends using a concrete saw with dust vacuum to expose clean concrete on all sides of the joint.

Ply-Guard UR (Joint Filler) should be applied directly into the joints without a primer or sealer.

Maintenance

If joint filler separates from the joint, fill voids with more Ply-Guard UR (Joint Filler).

Installation

Filler Depth

The purpose of filling joints is to protect them from spalling due to hard wheels and heavy loads. Ply-Guard UR (Joint Filler) can effectively transfer heavy loads when installed over a support base (concrete at the bottom of the joint) or is installed at a minimum depth of 2 inches.

Saw Cut Control Joints

Ply-Guard UR (Joint Filler) should be used to fill the full joint depth. In cases where the joint is cut deeper than 2 inches, a closed cell foam backer rod or sand may be used to seal the joint 2 inches deep. In all cases, installer may place up to ¼ inch of sand at bottom of joint to prevent material from seeping through. Never use a foam backer rod at less than 2 inches.

Construction/Formed Joints

Ply-Guard UR (Joint Filler) must be installed at a minimum of 2 inches deep. Installer may use a foam backer rod or sand to close off joint at 2 inches deep. If construction joints are saw cut, Ply-Guard UR (Joint Filler) should be installed to the saw cut depth, using foam backer rod or sand to close off joint beneath.

Dispensing

Ply-Guard UR (Joint Filler) should be dispensed through a two component powered dispensing pump, using a 3/8 inch static mixer with 32 elements. Joints should be filled from bottom to top by placing dispensing tip into the joint. If dispensing tip is too large, joints may be filled in two passes. Joint should be overfilled to ensure that a level surface can be achieved after shaving.

Once material has cured (typically 45-60 minutes), shave the excess material using a razor blade equipped scraper. The joint filler should allow the floor surface to be level and continuous. If the material is shaved too early, it may be concave in the joint. The load transfer ability of the joint filler will be diminished. Sand or rough the surface of the joint filler and apply another bead of Ply-Guard UR (Joint Filler) on top. Shave the excess to form a level surface.

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