

# DURA-FILL® 3405 NR

## Crack and Joint Sealant for Cold Climates

**Description:** Dura-Fill 3405 NR is a premium crack and joint sealant for portland cement and asphaltic pavements. As an economical and effective preventative maintenance treatment, Dura-Fill 3405 NR prolongs pavement life by sealing cracks and joints from water penetration, which cause base failure and pot holes. Dura-Fill 3405 NR is a hot applied, one part material that provides excellent results in cold weather and throughout repeated freeze/thaw cycles. Dura-Fill 3405 NR offers high resiliency, ductility, and resistance to weathering. Dura-Fill 3405 NR forms a long-lasting seal which resists tracking in warm temperatures and remains flexible in cold temperatures.

**Recommended Uses:** Dura-Fill 3405 NR is recommended for sealing cracks and joints in portland cement and asphaltic pavements. It is designed to seal expansion and contraction joints, longitudinal and transverse cracks, joints between concrete and asphaltic shoulders, and random cracks.

**Surface Preparation:** Proper surface preparation facilitates adhesion and consequently the maximum service life of the sealant. In order for proper adhesion, the crack/joint must be free of moisture, dust, loose aggregate, and other contaminants. The substrate and air temperatures must be 40° F or above. Sawing, routing, and/or sandblasting are the preferred methods of preparation. Use oil-free compressed air and heat to clean and dry the crack/joint immediately prior to sealing. Cracks/joints should be sized so that the maximum extension and compression do not exceed 50% of the width. Best results are obtained when the cracks/joints are opened at least 1/2 inch wide.

**Melting and Application:** Melt Dura-Fill 3405 NR using a conventional **oil jacketed kettle** equipped with agitator and temperature control devices for both the material and heat transfer oil. Carefully insert small quantities of Dura-Fill and the plastic bag into the melting equipment while the agitator is turned off. Load material slowly to avoid splash back. After the initial load has reached the recommended pouring temperature, fresh material may be added to the melter as sealant is used. Melt only the material that will be used during that day. Purge material remaining in the kettle lines at the end of each sealing operation. The material may be safely reheated and can be applied using a pressure feed wand system or a pour pot.

**Note:** The temperature of the heat transfer oil should not exceed 525° F. Do not heat Dura-Fill above the maximum heating temperature and do not maintain it at that temperature for prolonged periods of time. This could cause the material to gel in the equipment or fail in the joints. A significant viscosity increase accompanied by stringiness signals the approach of gelation. If this occurs, immediately remove the material from the melter and dispose of it.

*For further details read and follow the Dura-Fill MSDS, Installation Instructions for Oil Jacketed Dura-Fill Products, and P&T Products' Warranty.*

### Product Specifications

when tested in accordance with ASTM D 5329, 36, modified 3111, & 4402.

|                         |                                   |                          |
|-------------------------|-----------------------------------|--------------------------|
| Heating Temperature     |                                   | 410 F Max.               |
| Application Temperature |                                   | 370-390 F                |
| Heating Time            |                                   | 12 Hours Max.            |
| Penetration             | 77 F                              | 90 dmm Max.              |
| Resiliency              | 77 F                              | 60% Min.                 |
| Flow                    | 140 F                             | 3 mm Max.                |
| Bond                    | -20 F / 50 % Extension            | 3 Cycles Passed          |
| Bond                    | 0 F / 100 % Extension             | 3 Cycles Passed          |
| Softening Point         |                                   | 176 F Min.               |
| Crumb Rubber Content    | By Weight of Asphaltic Components | 0% Approximately         |
| Viscosity               | 375 F                             | 30 Poise Max.            |
| Specific Gravity        |                                   | 1.18 Approximately       |
| Flash Point             |                                   | 400 F Min.               |
| Optimum Climate         | Average Temperatures              | -29 / 26 C Or -20 / 80 F |

- ◆ Flexible to -20° F
- ◆ Excellent Adhesion
- ◆ Rapid Melting
- ◆ Resists Tracking
- ◆ Sets-Up Quickly

### Coverage

| Width | Depth | Pounds/100 Linear Feet |
|-------|-------|------------------------|
| 3/8"  | 3/8"  | 7.2                    |
| 3/8"  | 1/2"  | 9.6                    |
| 1/2"  | 1/2"  | 12.8                   |
| 1/2"  | 1"    | 25.6                   |
| 3/4"  | 1/2"  | 19.2                   |
| 3/4"  | 3/4"  | 28.8                   |

### Specifications

ASTM D 3405  
ASTM D 6690 Types 2 & 3  
AASHTO M 301  
AASHTO M 324 Types 2 & 3  
Exceeds  
ASTM D 1190  
ASTM D 6690 Type 1  
AASHTO M 173  
AASHTO M 324 Type 1  
Fed. Spec. SS-S-164  
SS-S-1401C  
FAA P 605

### Packaging

Dura-Fill is packaged in 2-25 lb. poly-bags in a 50 lb. high strength corrugated box. Each pallet contains 48 boxes or 2,400 pounds of Dura-Fill.

# P&T Products, Inc.

6-2015

472 Industrial Parkway, Sandusky, Ohio 44870  
(419) 621-1966 • Fax (419) 621-1988 • (877) 690-4093 • www.P-TProductsInc.com