



## FOAR HYDRO PROOF 6690

*Water Resistant Crack and Joint Sealant for Asphalt and Concrete Pavements*

FOAR Hydro Proof 6690 is a hot applied sealant designed to seal cracks and joints on asphalt and concrete in cold to moderate climates.

FOAR Hydro Proof 6690 is supplied in solid form which when melted and properly applied forms a resilient, adhesive, and flexible compound that resists cracking in the winter and flowing in the summer.

FOAR Hydro Proof 6690 includes special additives to maintain adhesion with its substrate when immersed in water for a long period such as after heavy rainfall and maintains resilience while exhibiting minimal flow in extreme heat.

**However this sealant is NOT flow resistant in extremely hot conditions.** For a sealant with much greater flow resistance please refer to FOAR Flow Proof 6690.

### Standard Compliance

ASTM D 6690-21 Types II & III (Rev. 2021)  
(Exceeds ASTM D 6690-21 Type I)

### Substrate Preparation

Joint side walls must be roughened if they are smooth. The joint should then be cleaned using a water/mist jet. A heat lance should then be used to ensure moisture removal. To control and maintain the required joint depth a heat resistant backer rod of an appropriate size should be placed in the joint to the required depth. Care should be taken not to puncture the backer rod during installation as punctures might create bubbling. Air dry joint (if required) after laying of backer rod prior to application of sealant.

### Application

FOAR Hydro Proof 6690 is to be heated in a hot-oil jacketed melter capable of constant mechanical agitation and equipped with a gauge to monitor sealant temperature.

For best results the heating oil in the application apparatus must be heated to a temperature of 140 to 150 °C (material temperature at 130 to 140 °C) and extruded directly onto the backer rod placed in the joint. Discard any initial material extruded which is contaminated with flushing oil.

The maximum safe heating temperature of the heating oil is 163 °C (material temperature at 153 °C). Heating period not to exceed 6 hours.

With pavement temperature at 4 °C or higher, place material into clean, dry crack or prepared joint with roughened side walls by means of a hand-held pour pot, wheeled push band applicator, or wand applicator.

### Backer Rod Compliance

ASTM D 5249 Type I

### Heat Shrinkage and Density

Before application (heating): 1.20 kg/L

After application (heating): 1.23 kg/L

Heat shrinkage factor: 2.5% approx.

### Calculating Amount Required for Filling

Liters: Width (in mm) x sealant depth (in mm) x length (in m) / 1000 = liters required + 2.5% heat shrinkage factor + 5% wastage factor due to irregular joint width

Joint / Crack Width	Typical Sealant Depth	Backer Rod ø	Length filled w/1 L
3/8" (9.53 mm)	1/2" (12.70 mm)	1/2"	7.75 m (25 RFT)
1/2" (12.70 mm)	5/8" (15.88 mm)	5/8"	4.75 m (16 RFT)
5/8" (15.88 mm)	5/8" (15.88 mm)	3/4"	3.75 m (12 RFT)
3/4" (19.05 mm)	3/4" (19.05 mm)	1"	2.5 m (8 RFT)

Kilograms: Width (in mm) x sealant depth (in mm) x length (in m) / 1000 = liters required x 1.20 kg/L + 2.5% heat shrinkage factor + 5% wastage factor due to irregular joint width

Joint / Crack Width	Typical Sealant Depth	Backer Rod ø	Length filled w/1 kg
3/8" (9.53 mm)	1/2" (12.70 mm)	1/2"	6.25 m (21 RFT)
1/2" (12.70 mm)	5/8" (15.88 mm)	5/8"	3.75 m (11 RFT)
5/8" (15.88 mm)	5/8" (15.88 mm)	3/4"	3 m (10 RFT)
3/4" (19.05 mm)	3/4" (19.05 mm)	1"	2 m (7 RFT)

### Packing

Disposable single use tearable tin pail having a net capacity of 16 L (19.20 kg).

### Storage and Shelf Life

One year from manufacturing date if kept in indoors storage under 40 °C away from sunlight.

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## FOAR HYDRO PROOF 6690 (continued)

Physical Characteristics	ASTM D 6690 Type I	ASTM D 6690 Type II	ASTM D 6690 Type III
Cone Penetration, Non Immersed at 25 °C	90 dmm maximum	90 dmm maximum	90 dmm maximum
Softening Point	80 °C minimum	80 °C minimum	80 °C minimum
Flow at 60 °C after 5 hours	5.0 mm maximum	3.0 mm maximum	3.0 mm maximum
Bond, Non Immersed	Two out of three 25.0 ± 0.4 mm specimens pass 5 cycles at 50% extension at -18 °C (Note A)	Three out of three 12.5 ± 0.2 mm specimens pass 3 cycles at 50% extension at -29 °C (Note A)	Three out of three 12.5 ± 0.2 mm specimens pass 3 cycles at 50% extension at -29 °C (Note A)
Bond, Water Immersed (immersed for 96 hours)	-	-	Three out of three 12.5 ± 0.2 mm specimens pass 3 cycles at 50% extension at -29 °C (Note A)
Resilience	60% minimum	60% minimum	60% minimum
Oven Aged Resilience at 70 °C for 168 hours	-	-	60% minimum
Asphalt Compatibility	Pass (Note B)	Pass (Note B)	Pass (Note B)
<b>Note A:</b> The development at any time during the test procedure of a crack, separation, or other opening that at any point is over 6 mm deep, in the sealant or between the sealant and concrete block shall constitute failure of the test specimen. The depth of the crack, separation or other opening shall be measured perpendicular to the side of the sealant showing the defect.			
<b>Note B:</b> There shall be no failure in adhesion, formation of an oily exudate at the interface between the sealant and asphaltic concrete or other deleterious effects on the asphaltic concrete or sealant when tested at 60 °C.			
<b>Additional Tests Conducted as per ASTM D 5329: Standard Test Methods for Hot Applied Sealants</b>			
Tensile Adhesion	500% minimum		
Flexibility at 70 °C after 72 hours	Pass (Note C)		
<b>Note C:</b> When conditioned in a forced draft oven maintained at 70 ± 1 °C for 72 ± 2 hours and bent at 90 degrees over a 6.4 mm (0.25 in.) diameter mandrel, the specimen shall have no indication of surface crazing or cracking.			

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