**FPT Infrastructure Standard Specification for**

**GREYSEAL 6690**

**SINGLE-COMPONENT GREY JOINT AND CRACK SEALANT**

PART 1 - GENERAL

1.1 SYSTEM DESCRIPTION

1. Prepare and seal cracks and joints (less than 1.5” wide) in concrete and highly-oxidized asphalt pavements.

1.2 REFERENCES

1. ASTM International (ASTM): www.astm.org:
	1. ASTM D6690 Standard Specification for Joint and Crack Sealants, Hot-Applied, for Concrete and Asphalt Pavements

1.3 DEFINITIONS

1. Joint and crack sealant –applied to the joint or crack my method specified based on the size of the area to be repaired.

1.4 QUALITY ASSURANCE

1. Qualifications
	1. The Manufacturer shall have a minimum of 10 years’ experience in the production, sales, and technical support of the Specified sealant materials.
	2. The Applicator shall have the Manufacturer’s written approval that he is qualified by training and experience to execute the work, as the Manufacturer’s nominated & approved applicator.
	3. Proposed suppliers of "or equal" products shall be required to meet all provisions of this specification as well as provide evidence for compatibility between components to the satisfaction of the Engineer.
	4. Any deviations from the Specifications shall be submitted in advance of bids being submitted. Unless prior approval has been given before the Bids close, any deviations from the Specifications, shall not be entertained after the bidding is completed.
2. Sampling and Testing
	1. Provide material that has been preapproved by the Construction Division, Maintenance Division, or Material and Testing. Submit blended samples of patching material for preapproval or field evaluation.

1.5 PACKAGING, STORAGE AND PROTECTION

1. Packaging
	1. Patching material shall be packaged in 30 pound meltable bags that are an integral ingredient in the patching material.
2. Storage and Protection
	1. The Applicator shall be provided with a storage area for all components. The area shall be secure, cool and dry, out of direct sunlight and in accordance with the Manufacturer's recommendations and relevant health and safety regulations.
	2. Copies of Material Safety Data Sheets (MSDS) for all components shall be kept on site for review by the Engineer or other personnel.

1.6 PROJECT CONDITIONS

1. Environmental Requirements
2. Application may proceed while air and substrate temperatures are between 5 °F (-15 °C) and 95 °F (35 °C), providing the substrate is clean, dry and free of moisture.
3. Safety Requirements
4. The Owner shall be responsible to provide uninterrupted and unimpeded access to and in the work area when work is to commence and for the duration of the installation process.
5. Non-related personnel shall not be present in the work area during the installation.

PART 2 - PRODUCT

2.1 MANUFACTURER(S)

FPT Infrastructure

Home Office

401 Old US 52 South

Mount Airy, NC 27030 USA

T: 336 789 7259

Website: www.fptinfrastructure.com

TERRITORY CONTACT

Name – Title

Contact Number(s); email

2.2 MATERIALS

1. Crack Filling/Sealing Material. Provide a hot-applied material consisting of a factory-blended binder, polymers, graded fillers, fibers and rubber that once heated, provides an impermeable, voidless solid mass at ambient temperatures. Formulate the material according to climatic conditions to provide a durable pavement repair with good fluidity at process temperature, low temperature flexibility, and ambient temperature flow resistance.

The material shall be a pentaerythritol rosin-based material and meet the following requirements:

**Property Test Method Value**

Color Grey

Cone Penetration ASTM D6690 Type I and II 90 maximum - PASS

Flow ASTM D6690 Type I and II 3 mm maximum - PASS

Softening Point ASTM D6690 Type I and II 176 °F (80 °C) minimum - PASS

Resilience ASTM D6690 Type II 60% minimum

Bond -1 °F (-18 °C), 50% extension ASTM D6690 Type I Pass 5 cycles

Bond, -20 °F (-29 °C), 50% extension ASTM D6690 Type II Pass 3 cycles

Minimum Application Temperature 380 °F

Maximum Heating Temperature 400 °F

PART 3 - CONSTRUCTION

3.1 PREPARATION

1. Equipment
	1. All application equipment shall be certified by the material manufacturer.
2. Concrete Preparation
3. Thoroughly clean and dry repair area using a hot-compressed air lance.
4. Heat and mix the material to 380 to 400 ⁰F on site in a mixing unit equipped with electronically controlled thermostats.

3.2 APPLICATION

1. Patching material application

1. Apply material to the repair area per project specification, including overband method, level fill method, or fill and squeegee.
2. Open repair area to traffic only when the patch has cooled to the point that it does not permanently deform under pressure, as recommended by the manufacturer or as directed.

PART 4 - BASIS OF PAYMENT

3.1 PAYMENT

1. This Item will be paid by the pound. This price is full compensation for furnishing materials, including bulking and final surface aggregates, patching material binder, and primer; heating and mixing; removal and disposal of existing pavement material; placing and finishing; labor, equipment, tools and incidentals.

END SECTION