



TECHNICAL DATA SHEET
DIRECT FIRE GRAY
Permanent Concrete Joint &
Crack Filler
 Manufacturer Product #: 2081;2082



PHYSICAL PROPERTIES & PERFORMANCE

Appearance: Gray Solid	Maximum VOC: 0 g/L
Application Temperature: 32° F and rising.	Specific Gravity: N/A
Viscosity: N/A	Weight Per Gallon: 15 lbs.
Color: Gray	Consistency: Solid
Boiling Point: 500°F (260°C)	Cure Time (50% relative humidity, 70° F): 20 minutes
Freeze ability: N/A	Container Size & Weight: 50lb Box; 40lb Boxless

PERFORMANCE TEST DATA

Meets or exceeds the requirements of ASTM C920-11 Standard Specification for Elastomeric Joint Sealants for the following test parameters:

- a. **Classification: Type S** – single component
- b. **Use: T₁** – For use in joints in pedestrian and vehicular traffic areas
- c. **Color: Pass** – Color equals agreed upon color
- d. **Hardness: Shore A: 50** – Tested as per ASTM C661-01 Standard Method for Indentation Hardness of Elastomeric-Type Sealants by Means of a Durometer
- e. **Tack Free Time: 5 minutes** – Tested as per ASTM C679 Standard Test Method for Tack-Free Time of Elastomeric Sealants
- f. **Adhesion in Peel: Pass >5 lbf Peel Strength and <25% Adhesion Bond Loss in all tests**

Substrate	Dry Adhesion (lbf, kg/M)	% Failure to Substrate	Wet Adhesion (lbf, kg/M)	% Failure to Substrate	Failure Mode
Concrete	24, 35.7	0	25, 37.2	0	Cohesive
Carbon Steel	18, 26.8	0	37, 55	0	Cohesive
Glass	28, 41.6	0	34, 50.6	0	Cohesive
Aluminum	29, 43.1	0	34, 50.6	0	Cohesive

Meets or exceeds requirements of **ASTM C794-10 Standard Test Method for Adhesion-in-Peel of Elastomeric Joint Sealants**

Meets or exceeds requirements of **ASTM D 3359**, for Paintability as determined by application and testing of the following general types of topcoat finish paints. **Test Method for Measuring Adhesion by Tape Test**

Top Coat Paint Type	Rating	% Failure
One Component Acrylic Latex Garage and Concrete Paint	5B	0
One Component Latex Masonry Waterproofing Paint	5B	0
Two Component High Solids Epoxy Top Coat	5B	0

Meets or exceeds requirements of ASTM D412 - 06ae2 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers—Tension and ASTM D1004 Tear Resistance of Plastic Film and Sheeting

100% Modulus	Ultimate Tensile	Elongation (3-inch test, 7.6cm)	Tear Strength
35psi	135psi	1000%	66 lb/inch

FEATURES

Direct Fire Gray is a tremendous solution for filling and repair of concrete joints and cracks. It is an elastomeric, self-leveling sealant, which liquefies quickly and can be used in concrete and asphalt pavements. When properly applied, it combines tenacious adhesive power with extraordinary resiliency to protect against the infiltration of moisture or incompressible through repeated thermal cycles of expansion and contraction. Dalton Hot Pour Joint Sealants exhibit superior low temperature ductility, weather resistance, low oxidation breakdown and are non-tracking.

SURFACE PREPARATION

In order to ensure adhesion and achieve maximum performance it is important to properly prepare the surface. The joint or crack must be free of moisture, dirt, dust and loose aggregate. The pavement surface and outdoor temperature must be 32° F or above. To clean out the crack or joint properly we recommend air blowing, routing or sandblasting. Use oil-free compressed air and heat to clean and dry the joint immediately prior to sealing. Joints/Cracks should be sized so that the maximum adhesion and compression do not exceed 50% of the width. Best results are obtained when the joints or cracks are opened at least 1/2" in width

MELTING & APPLICATION

Note: ALWAYS wear eye protection, gloves and long sleeve clothes and pants when using Direct Fire Gray. The melting kettle can be a conventional oil jacketed unit or a direct fire kettle with mechanical agitation and temperature control devices. Carefully insert small quantities (Direct Fire Gray comes in 40lb Boxless or 50lb Box containing two 25 lb. blocks) of Direct Fire Gray and the plastic bag into the melting equipment while the agitator is turned OFF. Load the material in SLOWLY to avoid splashing. After the initial load has reached the recommended pouring temperature, fresh material may be added to the melter as the sealant is used. Melt only the material that will be used during the 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 535°F. Do not heat Direct Fire Gray 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/cracks. 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.

PRECAUTIONS

Avoid applying when temperatures drop below 32° F, 0° C. Allow all repaired surfaces to cure 24 hours prior to sealing. If the joint or crack filler is firm, you may seal over. Protective clothing and eyewear should be used during application

CLEAN UP & STORAGE

To remove Direct Fire Gray, heat and scrape off excess material.

!CAUTION!

Direct Fire Gray is for exterior use only. Keep out of reach of children.

Keep container capped when not in use. Non-flammable. This product contains chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Emergency & First Aid Procedures:

Eyes: Immediately flush with clean water for 15 minutes while holding eyelids open; consult a physician.

Inhalation: If overcome by mist or vapor, remove from exposure immediately; call a physician. If breathing is stopped or irregular, start resuscitation, administer oxygen.

Skin: Remove any contaminated clothing and wash skin with soap and warm water.

Ingestion: DO NOT INDUCE VOMITING even though vomiting may occur. If vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs. Get immediate medical attention.

WARRANTY AND DISCLAIMER

WARRANTY: The methods and techniques described herein represent some that have been used successfully to obtain desired results. Allow new concrete to fully cure-we recommend a minimum of 28 days prior to crack-sealing. The decision to use any of these methods and techniques is entirely at the election and responsibility of the user. Direct Fire Gray is warranted from defects for a period stated on the pail from date of purchase when applied according to our application instructions. Since sealer cannot control the manner of use of its products after their sale, seller will not be responsible for any consequential or indirect damages. If product is deemed defective, it shall be replaced by Dalton. No warranties will apply if the goods are in any way altered or modified after delivery by seller. There are no express warranties which extend beyond the description on the face hereof, manufacturer disclaims any implied warranties. This warranty does not include labor costs incurred for the application, re-application or consequential damage costs. Failures due to acts of God, fire, structural defects or causes beyond our control are excluded from this warranty. This warranty gives you specific rights and you may also have other rights which may vary from state to state. Original proof of purchase required for warranty claims.