



State of West Virginia  
 Department of Administration  
 Purchasing Division  
 2019 Washington Street East  
 Post Office Box 50130  
 Charleston, WV 25305-0130

# Request for Quotation

RFQ NUMBER  
 09120358

PAGE  
 1

ADDRESS CORRESPONDENCE TO ATTENTION OF:  
 ALAN CUMMINGS  
 304-558-2402

RFQ COPY  
 TYPE NAME/ADDRESS HERE

VENDOR

ORIGIN ID: BJJJ (419) 626-4375  
 PERRY WILSON  
 THORWORKS INDUSTRIES  
 2520 S CAMPBELL ST.

SHIP TO

DIVISION OF HIGHWAYS  
 DISTRICT NINE  
 146 STONEHOUSE ROAD  
 LEWISBURG, WV  
 24901 304-647-7457

DATE PRINTED	TERMS OF SALE	SHIP VIA	F.O.B.	FREIGHT TERMS
03/12/2012				

BID OPENING DATE: 03/28/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	LB		745-56	\$ .475	\$ 47,500. <sup>00</sup>
<p>ASPHALT JOINT BLOCK</p> <p>OPEN-END CONTRACT</p> <p>THE WEST VIRGINIA STATE PURCHASING DIVISION FOR THE AGENCY, THE WEST VIRGINIA DIVISION OF HIGHWAYS, IS SOLICITING BIDS FOR AN OPEN-END CONTRACT TO PROVIDE THE AGENCY WITH ASPHALT JOINT BLOCKS ASTM D6690 TYPE 1, FEDERAL SPECS SS-S-164 PER THE ATTACHED SPECIFICATIONS.</p> <p>EXHIBIT 3</p> <p>LIFE OF CONTRACT: THIS CONTRACT BECOMES EFFECTIVE ON AWARD AND EXTENDS FOR A PERIOD OF ONE (1) YEAR OR UNTIL SUCH "REASONABLE TIME" THEREAFTER AS IS NECESSARY TO OBTAIN A NEW CONTRACT OR RENEW THE ORIGINAL CONTRACT. THE "REASONABLE TIME" PERIOD SHALL NOT EXCEED TWELVE (12) MONTHS. DURING THIS "REASONABLE TIME" THE VENDOR MAY TERMINATE THIS CONTRACT FOR ANY REASON UPON GIVING THE DIRECTOR OF PURCHASING 30 DAYS WRITTEN NOTICE.</p> <p>UNLESS SPECIFIC PROVISIONS ARE STIPULATED ELSEWHERE IN THIS CONTRACT DOCUMENT BY THE STATE OF WEST VIRGINIA, ITS AGENCIES, OR POLITICAL SUBDIVISIONS, THE TERMS, CONDITIONS, AND PRICING SET FORTH HEREIN ARE FIRM FOR THE LIFE OF THE CONTRACT.</p> <p>RENEWAL: THIS CONTRACT MAY BE RENEWED UPON THE MUTUAL</p>						

RECEIVED  
 2012 MAR 27 AM 9:48  
 WV PURCHASING DIVISION

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Thom C. Schmitt</i>	TELEPHONE 419-626-4375	DATE 3/26/12
TITLE Sales	FEIN 41-1529458	ADDRESS CHANGES TO BE NOTED ABOVE

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'

## GENERAL TERMS & CONDITIONS REQUEST FOR QUOTATION (RFQ) AND REQUEST FOR PROPOSAL (RFP)

1. Awards will be made in the best interest of the State of West Virginia.
2. The State may accept or reject in part, or in whole, any bid.
3. Prior to any award, the apparent successful vendor must be properly registered with the Purchasing Division and have paid the required \$125 fee.
4. All services performed or goods delivered under State Purchase Order/Contracts are to be continued for the term of the Purchase Order/Contracts, contingent upon funds being appropriated by the Legislature or otherwise being made available. In the event funds are not appropriated or otherwise available for these services or goods this Purchase Order/Contract becomes void and of no effect after June 30.
5. Payment may only be made after the delivery and acceptance of goods or services.
6. Interest may be paid for late payment in accordance with the *West Virginia Code*.
7. Vendor preference will be granted upon written request in accordance with the *West Virginia Code*.
8. The State of West Virginia is exempt from federal and state taxes and will not pay or reimburse such taxes.
9. The Director of Purchasing may cancel any Purchase Order/Contract upon 30 days written notice to the seller.
10. The laws of the State of West Virginia and the *Legislative Rules* of the Purchasing Division shall govern the purchasing process.
11. Any reference to automatic renewal is hereby deleted. The Contract may be renewed only upon mutual written agreement of the parties.
12. **BANKRUPTCY:** In the event the vendor/contractor files for bankruptcy protection, the State may deem this contract null and void, and terminate such contract without further order.
13. **HIPAA BUSINESS ASSOCIATE ADDENDUM:** The West Virginia State Government HIPAA Business Associate Addendum (BAA), approved by the Attorney General, is available online at [www.state.wv.us/admin/purchase/vrc/hipaa.html](http://www.state.wv.us/admin/purchase/vrc/hipaa.html) and is hereby made part of the agreement provided that the Agency meets the definition of a Cover Entity (45 CFR §160.103) and will be disclosing Protected Health Information (45 CFR §160.103) to the vendor.
14. **CONFIDENTIALITY:** The vendor agrees that he or she will not disclose to anyone, directly or indirectly, any such personally identifiable information or other confidential information gained from the agency, unless the individual who is the subject of the information consents to the disclosure in writing or the disclosure is made pursuant to the agency's policies, procedures, and rules. Vendor further agrees to comply with the Confidentiality Policies and Information Security Accountability Requirements, set forth in <http://www.state.wv.us/admin/purchase/privacy/noticeConfidentiality.pdf>.
15. **LICENSING:** Vendors must be licensed and in good standing in accordance with any and all state and local laws and requirements by any state or local agency of West Virginia, including, but not limited to, the West Virginia Secretary of State's Office, the West Virginia Tax Department, and the West Virginia Insurance Commission. The vendor must provide all necessary releases to obtain information to enable the director or spending unit to verify that the vendor is licensed and in good standing with the above entities.
16. **ANTITRUST:** In submitting a bid to any agency for the State of West Virginia, the bidder offers and agrees that if the bid is accepted the bidder will convey, sell, assign or transfer to the State of West Virginia all rights, title and interest in and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of West Virginia for price fixing and/or unreasonable restraints of trade relating to the particular commodities or services purchased or acquired by the State of West Virginia. Such assignment shall be made and become effective at the time the purchasing agency tenders the initial payment to the bidder.

I certify that this bid is made without prior understanding, agreement, or connection with any corporation, firm, limited liability company, partnership, or person or entity submitting a bid for the same material, supplies, equipment or services and is in all respects fair and without collusion or fraud. I further certify that I am authorized to sign the certification on behalf of the bidder or this bid.

### INSTRUCTIONS TO BIDDERS

1. Use the quotation forms provided by the Purchasing Division. Complete all sections of the quotation form.
2. Items offered must be in compliance with the specifications. Any deviation from the specifications must be clearly indicated by the bidder. Alternates offered by the bidder as EQUAL to the specifications must be clearly defined. A bidder offering an alternate should attach complete specifications and literature to the bid. The Purchasing Division may waive minor deviations to specifications.
3. Unit prices shall prevail in case of discrepancy. All quotations are considered F.O.B. destination unless alternate shipping terms are clearly identified in the quotation.
4. All quotations must be delivered by the bidder to the office listed below prior to the date and time of the bid opening. Failure of the bidder to deliver the quotations on time will result in bid disqualifications: Department of Administration, Purchasing Division, 2019 Washington Street East, P.O. Box 50130, Charleston, WV 25305-0130
5. Communication during the solicitation, bid, evaluation or award periods, except through the Purchasing Division, is strictly prohibited (W.Va. C.S.R. §148-1-6.6).



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VENDOR

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DIVISION OF HIGHWAYS  
 DISTRICT NINE  
 146 STONEHOUSE ROAD  
 LEWISBURG, WV  
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BID OPENING DATE: 03/28/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
<p>WRITTEN CONSENT OF THE SPENDING UNIT AND VENDOR, SUBMITTED TO THE DIRECTOR OF PURCHASING THIRTY (30) DAYS PRIOR TO THE EXPIRATION DATE. SUCH RENEWAL SHALL BE IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THE ORIGINAL CONTRACT AND SHALL BE LIMITED TO TWO (2) ONE (1) YEAR PERIODS.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE COMMODITIES AND/OR SERVICES SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM TO THE SPECIFICATIONS OF THE BID AND CONTRACT HEREIN.</p> <p>OPEN MARKET CLAUSE: THE DIRECTOR OF PURCHASING MAY AUTHORIZE A SPENDING UNIT TO PURCHASE ON THE OPEN MARKET, WITHOUT THE FILING OF A REQUISITION OR COST ESTIMATE, ITEMS SPECIFIED ON THIS CONTRACT FOR IMMEDIATE DELIVERY IN EMERGENCIES DUE TO UNFORESEEN CAUSES (INCLUDING BUT NOT LIMITED TO DELAYS IN TRANSPORTATION OR AN UNANTICIPATED INCREASE IN THE VOLUME OF WORK.)</p> <p>QUANTITIES: QUANTITIES LISTED IN THE REQUISITION ARE APPROXIMATIONS ONLY, BASED ON ESTIMATES SUPPLIED BY THE STATE SPENDING UNIT. IT IS UNDERSTOOD AND AGREED THAT THE CONTRACT SHALL COVER THE QUANTITIES ACTUALLY ORDERED FOR DELIVERY DURING THE TERM OF THE CONTRACT, WHETHER MORE OR LESS THAN THE QUANTITIES SHOWN.</p> <p>ORDERING PROCEDURE: SPENDING UNIT(S) SHALL ISSUE A WRITTEN STATE CONTRACT ORDER (FORM NUMBER WV-39) TO THE VENDOR FOR COMMODITIES COVERED BY THIS CONTRACT. THE ORIGINAL COPY OF THE WV-39 SHALL BE MAILED TO THE VENDOR AS AUTHORIZATION FOR SHIPMENT, A SECOND COPY MAILED TO THE PURCHASING DIVISION, AND A THIRD COPY RETAINED BY THE SPENDING UNIT.</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Thomas C. Schuss</i>	TELEPHONE 419-626-4375	DATE 3/26/12
TITLE Sales	FEIN 41-1529458	ADDRESS CHANGES TO BE NOTED ABOVE

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<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>THE TERMS AND CONDITIONS CONTAINED IN THIS CONTRACT SHALL SUPERSEDE ANY AND ALL SUBSEQUENT TERMS AND CONDITIONS WHICH MAY APPEAR ON ANY ATTACHED PRINTED DOCUMENTS SUCH AS PRICE LISTS, ORDER FORMS, SALES AGREEMENTS OR MAINTENANCE AGREEMENTS, INCLUDING ANY ELECTRONIC MEDIUM SUCH AS CD-ROM.</p> <p>REV. 01/17/2012</p> <p>EXHIBIT 4</p> <p>LOCAL GOVERNMENT BODIES: UNLESS THE VENDOR INDICATES IN THE BID HIS REFUSAL TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO COUNTY, SCHOOL, MUNICIPAL AND OTHER LOCAL GOVERNMENT BODIES, THE BID SHALL EXTEND TO POLITICAL SUBDIVISIONS OF THE STATE OF WEST VIRGINIA. IF THE VENDOR DOES NOT WISH TO EXTEND THE PRICES, TERMS, AND CONDITIONS OF THE BID TO ALL POLITICAL SUBDIVISIONS OF THE STATE, THE VENDOR MUST CLEARLY INDICATE SUCH REFUSAL IN HIS BID. SUCH REFUSAL SHALL NOT PREJUDICE THE AWARD OF THIS CONTRACT IN ANY MANNER.</p> <p>REV. 3/88</p> <p>PURCHASING CARD ACCEPTANCE: THE STATE OF WEST VIRGINIA CURRENTLY UTILIZES A VISA PURCHASING CARD PROGRAM WHICH IS ISSUED THROUGH A BANK. THE SUCCESSFUL VENDOR MUST ACCEPT THE STATE OF WEST VIRGINIA VISA PURCHASING CARD FOR PAYMENT OF ALL ORDERS PLACED BY ANY STATE</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Thur C. Schutt</i>	TELEPHONE 419-626-4375	DATE 3/26/12
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<p>AGENCY AS A CONDITION OF AWARD.</p> <p>NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p>DEPARTMENT OF ADMINISTRATION            PURCHASING DIVISION            BUILDING 15            2019 WASHINGTON STREET, EAST            CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: ALAN CUMMINGS - FILE 33</p> <p>RFQ. NO.: 09120358</p> <p>BID OPENING DATE: 03/28/2012</p> <p>BID OPENING TIME: 1:30 P.M.</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:            ----- 419-626-1166 -----</p>						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Shirley C. Schutt</i>	TELEPHONE 419-626-4375	DATE 3/26/12	
TITLE Sales	FEIN 41-1529458	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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 ALAN CUMMINGS  
 304-558-2402

RFQ COPY  
 TYPE NAME/ADDRESS HERE

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DIVISION OF HIGHWAYS  
 DISTRICT NINE  
 146 STONEHOUSE ROAD  
 LEWISBURG, WV  
 24901 304-647-7457

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03/12/2012				

BID OPENING DATE: 03/28/2012 BID OPENING TIME 01:30PM

LINE	QUANTITY	UOP	CAT. NO.	ITEM NUMBER	UNIT PRICE	AMOUNT
CONTACT PERSON (PLEASE PRINT CLEARLY): <i>Paul Sackett / Thomas Schuster</i>						
ANY INDIVIDUAL SIGNING THIS BID IS CERTIFYING THAT: (1) HE OR SHE IS AUTHORIZED BY THE BIDDER TO EXECUTE THE BID OR ANY DOCUMENTS RELATED THERE TO ON BEHALF OF THE BIDDER, (2) THAT HE OR SHE IS AUTHORIZED TO BIND THE BIDDER IN A CONTRACTUAL RELATIONSHIP, AND (3) THAT THE BIDDER HAS PROPERLY REGISTERED WITH ANY STATE AGENCIES THAT MAY REQUIRE REGISTRATION.						
***** THIS IS THE END OF RFQ 09120358 ***** TOTAL: _____						

SEE REVERSE SIDE FOR TERMS AND CONDITIONS

SIGNATURE <i>Thomas C. Schuster</i>	TELEPHONE 419-626-4375	DATE 3/26/12
TITLE Sales	FEIN 41-1529458	ADDRESS CHANGES TO BE NOTED ABOVE

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Designation: D 6690 – 07

## Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements<sup>1</sup>

This standard is issued under the fixed designation D 6690, the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers joint and crack sealants of the hot applied type intended for use in sealing joints and cracks in Portland Cement Concrete and Asphaltic Concrete Pavements.

1.2 This specification does not purport to cover the properties required of sealants for use in areas of Portland Cement concrete or asphaltic pavement subject to jet fuel or other fuel spillage such as vehicle and/or aircraft refuel and maintenance areas.

1.3 The values stated in SI units are the standard.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory requirements prior to use.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

- D 36 Test Method for Softening Point of Bitumen (Ring-and-Ball Apparatus)
- D 5167 Practice for Melting of Hot-Applied Joint and Crack Sealant and Filler for Evaluation
- D 5249 Specification for Backer Material for Use with Cold- and Hot-Applied Joint Sealants in Portland-Cement Concrete and Asphalt Joints
- D 5329 Test Methods for Sealants and Fillers, Hot-Applied, for Joints and Cracks in Asphaltic and Portland Cement Concrete Pavements

#### 2.2 Federal Specification:<sup>3</sup>

SS-S-1410C

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee D04 on Road and Paving Materials and is the direct responsibility of Subcommittee D04.33 on Formed In-Place Sealants for Joints and Cracks in Pavements.

Current edition approved Dec. 1, 2007. Published January 2008. Originally approved in 2001. Last previous edition approved in 2006 as D 6690 – 06a.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: S101, Washington, DC 20401, <http://www.access.gpo.gov>.

### 3. General Requirements

3.1 The sealant shall be composed of a mixture of materials that will form a resilient and adhesive compound capable of effectively sealing joints and cracks in concrete and asphaltic pavements against the infiltration of moisture and foreign material throughout repeated cycles of expansion and contraction with temperature changes, and that will not, at ambient temperatures, flow from the joint or be picked up by vehicle tires. The material shall be capable of being brought to a uniform pouring consistency suitable for completely filling the joints without inclusion of large air holes or discontinuities and without damage to the material. It shall remain relatively unchanged in application characteristics for at least 6 h at the recommended application temperature in the field.

### 4. Classification

4.1 *Type I*—A joint and crack sealant capable of maintaining an effective seal in moderate climates. The material is tested for low temperature performance at  $-18^{\circ}\text{C}$  using 50 % extension.

4.2 *Type II*—A joint and crack sealant capable of maintaining an effective seal in most climates. Material is tested for low temperature performance at  $-29^{\circ}\text{C}$  using 50 % extension.

4.3 *Type III*—A joint and crack sealant capable of maintaining an effective seal in most climates. Material is tested for low temperature performance at  $-29^{\circ}\text{C}$  using 50 % extension. Special tests are included (formerly Federal Spec SS-S-1401C).

4.4 *Type IV*—A joint and crack sealant capable of maintaining an effective seal in climates experiencing very cold temperatures. Material is tested for low temperature performance at  $-29^{\circ}\text{C}$  using 200 % extension.

**NOTE 1**—It is the responsibility of the user agency to determine which type is most applicable to their conditions.

### 5. Physical Requirements

5.1 *Maximum Heating Temperature*—The maximum heating temperature is the highest temperature to which a sealant can be heated, and still conform to all the requirements specified herein. For purposes of testing as specified hereinafter, the application temperature shall be the same as the


**D 6690 - 07**

maximum heating temperature. The maximum heating temperature shall be set forth by the manufacturer, shall be shown on all containers and shall be provided to the testing agency before any laboratory tests are begun.

5.2 The sealant shall conform to the requirements prescribed in Table 1.

## 6. Sampling and Heating

### 6.1 Sampling:

6.1.1 Samples may be taken at the plant or warehouse prior to delivery or at the time of delivery, at the option of the purchaser. If sampling is done prior to shipment, the inspector representing the purchaser shall have free access to the material to be sampled. The inspector shall be afforded all reasonable facilities for inspection and sampling which shall be conducted so as not to interfere unnecessarily with the operation of the works.

6.1.2 Samples shall consist of one of the manufacturer's original sealed containers selected at random from the lot or batch of finished material. A batch or lot shall be considered as all finished material that was manufactured simultaneously or continuously as a unit between the time of compounding and the time of packaging or placing in shipping containers.

6.1.3 Obtain the sealant portion for testing from the selected manufacturer's original sealed container in accordance with Practice D 5167. The sample portion added to and heated in the melter shall weigh  $800 \pm 50$  g for Types I, II, IV, and  $1600 \pm 50$  g for Type III. Both pots of the melter described in Practice D 5167 shall be used for Type III.

6.2 Heating—Heat the material in accordance with Practice D 5167.

6.2.1 The oil bath in the melter shall be heated to a temperature between the sealant's maximum heating temperature and  $42^\circ\text{C}$  above the sealant's maximum heating temperature. (Never allow the oil temperature to exceed  $288^\circ\text{C}$ ). Add the sealant to the melter according to the instructions in Practice D 5167. After the sample has been added to the melter, regulate the oil temperature within the listed temperature limits while raising the sealant's temperature to manufacturer's recommended maximum heating temperature within the required 1 hour of time, as stated in Practice D 5167. Immediately upon reaching the maximum heating temperature, pour

samples for testing, except for Type III which shall be heated for 3 h from the time of first addition to the melter.

## 7. Test Methods

7.1 *Specimen Conditioning*—Condition all specimens at standard laboratory conditions for  $24 \pm 4$  h as specified in test Method D 5329 prior to beginning any testing.

7.2 *Cone Penetration*—Determine cone penetration according to Method D 5329 for Cone Penetration, non-immersed.

7.3 *Softening Point*—Determine the Softening Point according to Test Method D 36. USP Glycerin shall be used for the liquid.

7.4 *Bond, Non-Immersed*—Determine the bond according to Test Method D 5329 for Bond, non-immersed.

7.4.1 After final scrubbing and bloting specified in Test Method D 5329, air-dry the blocks on their  $12.7 \text{ mm} \times 25.4 \text{ mm}$  ends at standard laboratory conditions for  $1 \text{ h} \pm 10 \text{ min}$ . prior to pouring bond specimens.

7.4.2 Immediately after conditioning the blocks as in 7.4.1, assemble the blocks with spacers as specified in Test Method D 5329 so the opening between the blocks will form a cured sealant block that is  $25.4 \text{ mm} \pm 0.1 \text{ mm}$  wide for Type I and  $12.7 \pm 0.1 \text{ mm}$  wide for Type II, Type III, and Type IV.

7.4.3 After pouring material into the block opening, condition the specimen as in 7.1. After conditioning, remove spacers and trim off excess material with a hot knife being careful not to pull sealant from the block. Condition the test specimens not less than 4 h at the temperature specified in Table 1 for the Specific Type of Sealant. Immediately extend the specimen to the prescribed percentage in Table 1 using the apparatus and rate described in D 5329.

7.4.4 Re-compress and re-extend according to Test Method D 5329 for the total number of cycles prescribed in Table 1. The required cycles shall be completed within a 5-day period from the time of pouring for Type II, III, and IV, and a 7-day period for Type I.

7.5 *Bond, Water Immersed, Type III Only*—Determine the Bond according to ASTM D 5329. Prepare the specimens as in section 7.4 except after conditioning, immerse in water for 96 h as described in D 5329. Testing shall be completed in 5 days from removal from the water for Types III.

7.6 *Resilience*—Use Test Method D 5329 for Resilience.


TABLE 1

	Type I	Type II	Type III	Type IV
Cone Penetration at $25^\circ\text{C}$	90 max.	90 max.	90 max.	90-150
Softening Point $^\circ\text{C}$ ( $^\circ\text{F}$ )	80 (176) minimum	80 (176) minimum	80 (176) minimum	80 (176) minimum
Bond, non-immersed	Two out of three 25.4 mm specimens pass <sup>a</sup> 5 cycles at 50 % ext. at $-18^\circ\text{C}$	Three 12.7 mm Specimens pass <sup>a</sup> 3 cycles at 50 % ext. at $-29^\circ\text{C}$	Three 12.7 mm Specimens pass <sup>a</sup> 3 cycles at 50 % ext. at $-29^\circ\text{C}$	Three 12.7 mm Specimens pass <sup>a</sup> 3 cycles at 200 % ext. at $-29^\circ\text{C}$
Bond, water immersed	..	..	Three 12.7 mm specimens pass <sup>a</sup> 3 cycles at 50 % ext. at $-29^\circ\text{C}$	..
Resilience, %	..	60 min.	60 min.	60 min.
Oven Aged Resilience, %	..	..	60 min.	..
Asphalt Compatibility	Pass <sup>b</sup>	Pass <sup>b</sup>	Pass <sup>b</sup>	Pass <sup>b</sup>

<sup>a</sup> 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.

<sup>b</sup> 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  $60^\circ\text{C}$ .



 D 6690 - 07

7.7 *Oven Aged Resilience*—Age specimen @ 70°C for 168 h. Use Test Method D 5329.

7.8 *Asphalt Compatibility*—Test asphalt compatibility according to Test Method D 5329.

### 8. Packaging and Marking

8.1 The sealing compound shall be delivered in the manufacturer's original containers. Each container shall be legibly marked with the name of the manufacturer, the trade name of

the sealant, the manufacturer's batch, or lot number and specification number and type, the minimum application temperature and the maximum heating temperature. The maximum heating temperature must be at least 11°C (20°F) higher than the minimum application temperature.

### 9. Keywords

9.1 hot applied; joint sealant

## APPENDIX

(Nonmandatory Information)

### X1.


X1.1 Some if not all, materials conforming to this specification may be damaged by heating to too high a temperature, reheating, or by heating for too long a time. Care should be exercised to secure equipment for heating and application that is suitable for the purpose and approved by the manufacturer of the material. The material should be heated in a kettle or melter constructed as a double boiler, with the space between the inner and outer shells filled with oil or other heat transfer medium. Thermostatic control for the heat transfer medium shall be provided and shall have sufficient sensitivity to maintain sealant temperature within the manufacturer's specified application temperature range. Temperature indicating devices shall have intervals no greater than 5°F (2.8°C) and shall be calibrated as required to assure accuracy. The melter shall have a continuous sealant agitation and mixing system to provide uniform viscosity and temperature of material being applied. If equipped with an application system to deliver sealant to the pavement, the melter shall incorporate a recirculation pump or other means of maintaining sealant temperature in the delivery system. Sealant that has been damaged due to overheating, reheating or prolonged heating may experience poor adhesion, softening or bleeding, difficult application, or jelling in the melter. Direct heating must not be used. As a means of ascertaining whether or not the material covered by this specification is being or has been damaged in the field as a result of overheating, reheating, or prolonged heating, flow panel specimens may be prepared periodically by drawing off sealant directly from the melter-applicator during sealing operations and then tested for flow according to the methods of testing materials covered by this specification. Flow in excess of 3.0 mm for Type II, III, and IV, and 5.0 mm for Type I would indicate damage to material caused by improper heating procedures.

X1.2 Pavement joints in new construction for application of material covered by this specification should be dry, clean of all scale, dirt, dust, curing compound, and other foreign matter. The sidewalls of the joint space to be sealed should then be thoroughly sandblasted, blown clean of loose sand by high-pressure air, and sealed by use of the melter-applicator described in X1.1.

X1.3 When material covered by this specification is used for maintenance or resealing of joints that have contained either similar or dissimilar sealing material, it is recommended that the joint be dry, cleaned thoroughly with a plow, router, wire brush, concrete saw, or other suitable tool or tools designed for the purpose of neatly cleaning pavement joints. Loose material should be blown out. The sidewalls of the joint space to be sealed should be thoroughly sandblasted, blown free of loose sand with high-pressure air and then sealed with material by use of the melter-applicator described in X1.1.

X1.4 The use of a backer material or bond breaker in the bottom of the joint to be filled with material covered by this specification is recommended to control the depth of the sealant and achieve the desired shape factor, and to support the sealant against indentation and sag. Backer materials and bond breakers should be compatible with the material. Due to the elevated temperatures of application of material covered by this specification, care should be exercised in the selection of the suitable backer materials. Refer to Specification D 5249 for recommended backer materials.

X1.5 Care should be practiced in the application of material covered by this specification to avoid overfilling of the joint space. Joints should be filled in a neat workmanlike manner from 1/8 to 1/4 in. (3 to 6 mm) below the adjacent pavement surface.

 D 6690 - 07

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COST SHEET

RQF#: 09-12-0358

ITEM NUMBER	ESTIMATED QUANTITY*	UNIT OF MEASURE	DESCRIPTION	UNIT PRICE	EXTENDED AMOUNT
1	100,000	POUNDS	ASPHALT JOINT & CRACK SEALANT	475	47,500. <sup>00</sup>

\*Quantities listed in the this RFQ are approximations only. It is understood and agreed that the contract shall cover the quantities actually ordered ofr delivery during the term of the contact, whether more or less than the quantities shown. Award will be based on lowest total cost.

**1. PRODUCT NAME**

CrackMaster 1190  
 Hot Pour Crack Sealant

**2. MANUFACTURER**

ThorWorks Industries, Inc.  
 2520 S. Campbell St.  
 Sandusky, OH 44870  
 Phone: 800-326-1994  
 Fax: 419-626-5477  
 www.thorworks.com

**Additional Plant Locations:**  
 SealMaster has a nationwide network of manufacturing and distribution facilities.

Phone 1-800-395-7325 or visit website at www.sealmaster.net to find the location near you.

**3. PRODUCT DESCRIPTION & BENEFITS**

CrackMaster 1190 is a single component, hot applied crack and joint sealant. When melted and properly applied it forms a resilient crack sealant for both asphaltic and cementitious pavements. CrackMaster 1190 meets ASTM-D1190, ASTM-D6690 Type I, and AASHTO-M173.

**Basic Uses:** CrackMaster 1190 is designed to seal expansion joints, longitudinal and transverse cracks, joints between concrete and asphalt shoulders, and random cracks in both asphalt and concrete pavements.

**Composition:** As supplied, CrackMaster 1190 is supplied in solid blocks comprised of asphaltic resins and synthetic polymer rubber.

**Sizes:** CrackMaster 1190 is supplied in 50 lb. cardboard cartons containing two 25 lb. blocks of material per carton.

**Color:** Black.

**Limitations:** Do not overheat material. Cracks must be free from moisture, dust, loose aggregate and other contaminants prior to application.

**4. TECHNICAL DATA**

CrackMaster 1190 meets the

following material requirements when tested in accordance with ASTM D1190, ASTM D6690 Type I and AASHTO M173 (see chart below).

**Environmental Considerations:** CrackMaster 1190 is considered a non-hazardous material.

**5. INSTALLATION**

Proper surface preparation will facilitate adequate adhesion and consequently the maximum service life of the sealant. The crack must be free from moisture, dust, and loose aggregate. Routing or wire brushing are preferred methods followed by a compressed air heat lance immediately prior to sealing. The substrate and air temperature must be above 40°F.

**Methods:** CrackMaster 1190 shall be melted in a conventional oil-jacketed unit equipped with an agitator and temperature control device for both material and heat transfer oil. Carefully insert blocks of material (with plastic bag) into melting equipment with agitator turned off. Load material slowly to avoid splashing. After the initial load of material has reached the recommended pouring temperature (370-390°F), fresh material may be added as sealant is used. Melt only enough material that will be used the same day. Avoid overheating material. Excessive heat could cause material to gel in the equipment or fall in crack

and 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.

**IMPORTANT:** Protective apparel is recommended with application of CrackMaster 1190. The extremely hot material will cause severe burns on contact with skin. OSHA Safety Regulations require workers to wear the following types of safety attire (see current OSHA/Safety Regulations for additional information): Hard hat with face shield; long sleeved shirt buttoned at the wrist; heat resistant gloves; long, cuffless pants; and safety toed work boots. Make certain all area around melter is clear of all debris and flammable materials. Avoid breathing vapors. Use with adequate ventilation.

**Mixing Procedures:** Use material as supplied. Do not blend with other materials. After CrackMaster 1190 is melted it should be agitated or recirculated.

**Application:** Apply heated CrackMaster 1190 using either a pump and wand system or a pour pot. For best results the sealant depth to width ratio should not exceed 2 to 1 (i.e. 2-inches deep to 1-inch wide). The cooled sealant height should not exceed 1/8" above surrounding pavement. Using a sealing shoe or squeegee, band the material 2 to 3 inches wide over the crack.

**Chemical & Physical Analysis**

Recommended Pour Temperature.....	370-390°F
Maximum Heating Temperature .....	400°F
Cone Penetration at 25°C .....	90 Max.
Resiliency.....	30 - 60%
Flow at 140°F (5h).....	5 mm Max.
Bond: 0°F/50% Ext. ....	Passes 5 cycles
Specific Gravity .....	1.14
Asphalt Compatibility.....	PASSES
Viscosity @ 370.....	35 ± 20 poise

CrackMaster 1190  
 Hot Pour Crack Sealant  
 SMT-193

SealMaster  
 August 2005  
 Supersedes: SMT-193 (7/02), SMT-193 (7/04)

PAVING AND SURFACING  
 Pavement Sealer



H.M.I.S. RATING	
Health	1
Flammability	1
Reactivity	0
Protective Equip.	E

## Material Safety Data Sheet – OSHA 174

### Material Safety Data Sheet

May be used to comply with OSHA's Hazard communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

### US Department of Labor

Occupational Safety and Health Administration  
(Non-Mandatory Form) Form Approved OMB No. 1218-0072

## CrackMaster 1190

Product No. M1080

### SECTION I - Manufacturer / Product Information

<b>Manufacturer's Name:</b> ThorWorks Industries, Inc. <b>Address:</b> 2520 South Campbell Street Sandusky, Ohio 44870	<b>Emergency Telephone No.:</b> Chemtrec: 1-800-424-9300 <b>Telephone Number for Information:</b> 1-800-326-1994 <b>Date Prepared:</b> April 28, 2008
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### SECTION II - Chemical Identity Information

Ingredient	CAS #	OSHA PEL	ACGIH TLV	Other Limits	Percent
Asphalt	8052-42-4	N/A	5 mg/m3		

### SECTION III - Physical / Chemical Characteristics

<b>Boiling Point:</b> >600° F.	<b>Specific Gravity (H2O = 1):</b> 1.0-1.3
<b>Vapor Pressure (mm Hg):</b> N/A	<b>Melting Point:</b> (ASTM-D36, Ring and Ball Softening Point) 160-220° F.
<b>Vapor Density (AIR = 1):</b> N/A	<b>Evaporation Rate (Butyl Acetate = 1):</b> N/A
<b>Solubility in Water:</b> Negligible	
<b>Appearance and Odor:</b> Black adhesive, asphaltic odor, solid at 77° F. / liquid above 275° F.	

### SECTION IV - Fire and Explosion Hazard Data

**Flash Point (Method Used):** C.O.C. (ASTM-D92) 424° F. Minimum

**Flammable Limits:** N/A    **LEL:** N/A    **UEL:** N/A

**Extinguishing Media:** Foam, CO2, dry chemical

**Special Fire Fighting Procedures:** Full protective equipment, including self-contained breathing apparatus to be worn. Concentrated vapors from combustion should not be breathed.

**Unusual Fire and Explosion Hazards:** Material will not burn unless pre-heated. Black, dense, hazy smoke forms during burning. Keep sparks away from concentrated fumes.

### SECTION V - Reactivity Data

**Stability:**    **Unstable:**    **Stable:** X    **Conditions to Avoid:** DO NOT expose fumes from heated product to sources of ignition.

**Incompatibility (Materials to Avoid):** Strong oxidizers.

**Hazardous Decomposition or Byproducts:** Combustion may produce various oxides of carbon (CO, CO2...)

**Hazardous Polymerization:**    **May Occur:**    **Will Not Occur:** X    **Conditions to Avoid:** N/A

**VENDOR PREFERENCE CERTIFICATE**

Certification and application\* is hereby made for Preference in accordance with *West Virginia Code*, §5A-3-37. (Does not apply to construction contracts). *West Virginia Code*, §5A-3-37, provides an opportunity for qualifying vendors to request (at the time of bid) preference for their residency status. Such preference is an evaluation method only and will be applied only to the cost bid in accordance with the *West Virginia Code*. This certificate for application is to be used to request such preference. The Purchasing Division will make the determination of the Resident Vendor Preference, if applicable.

1. **Application is made for 2.5% resident vendor preference for the reason checked:**  
 Bidder is an individual resident vendor and has resided continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,  
 Bidder is a partnership, association or corporation resident vendor and has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or 80% of the ownership interest of Bidder is held by another individual, partnership, association or corporation resident vendor who has maintained its headquarters or principal place of business continuously in West Virginia for four (4) years immediately preceding the date of this certification; or,  
 Bidder is a nonresident vendor which has an affiliate or subsidiary which employs a minimum of one hundred state residents and which has maintained its headquarters or principal place of business within West Virginia continuously for the four (4) years immediately preceding the date of this certification; or,
2. **Application is made for 2.5% resident vendor preference for the reason checked:**  
 Bidder is a resident vendor who certifies that, during the life of the contract, on average at least 75% of the employees working on the project being bid are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
3. **Application is made for 2.5% resident vendor preference for the reason checked:**  
 Bidder is a nonresident vendor employing a minimum of one hundred state residents or is a nonresident vendor with an affiliate or subsidiary which maintains its headquarters or principal place of business within West Virginia employing a minimum of one hundred state residents who certifies that, during the life of the contract, on average at least 75% of the employees or Bidder's affiliate's or subsidiary's employees are residents of West Virginia who have resided in the state continuously for the two years immediately preceding submission of this bid; or,
4. **Application is made for 5% resident vendor preference for the reason checked:**  
 Bidder meets either the requirement of both subdivisions (1) and (2) or subdivision (1) and (3) as stated above; or,
5. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**  
 Bidder is an individual resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard and has resided in West Virginia continuously for the four years immediately preceding the date on which the bid is submitted; or,
6. **Application is made for 3.5% resident vendor preference who is a veteran for the reason checked:**  
 Bidder is a resident vendor who is a veteran of the United States armed forces, the reserves or the National Guard, if, for purposes of producing or distributing the commodities or completing the project which is the subject of the vendor's bid and continuously over the entire term of the project, on average at least seventy-five percent of the vendor's employees are residents of West Virginia who have resided in the state continuously for the two immediately preceding years.

Bidder understands if the Secretary of Revenue determines that a Bidder receiving preference has failed to continue to meet the requirements for such preference, the Secretary may order the Director of Purchasing to: (a) reject the bid; or (b) assess a penalty against such Bidder in an amount not to exceed 5% of the bid amount and that such penalty will be paid to the contracting agency or deducted from any unpaid balance on the contract or purchase order.

By submission of this certificate, Bidder agrees to disclose any reasonably requested information to the Purchasing Division and authorizes the Department of Revenue to disclose to the Director of Purchasing appropriate information verifying that Bidder has paid the required business taxes, provided that such information does not contain the amounts of taxes paid nor any other information deemed by the Tax Commissioner to be confidential.

Under penalty of law for false swearing (*West Virginia Code*, §61-5-3), Bidder hereby certifies that this certificate is true and accurate in all respects; and that if a contract is issued to Bidder and if anything contained within this certificate changes during the term of the contract, Bidder will notify the Purchasing Division in writing immediately.

Bidder: \_\_\_\_\_ Signed: \_\_\_\_\_

Date: \_\_\_\_\_ Title: \_\_\_\_\_

\*Check any combination of preference consideration(s) indicated above, which you are entitled to receive.

STATE OF WEST VIRGINIA  
Purchasing Division**PURCHASING AFFIDAVIT**

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

**DEFINITIONS:**

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

**EXCEPTION:** The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code* §61-5-3), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

**WITNESS THE FOLLOWING SIGNATURE**Vendor's Name: Thor Works Industries Inc.Authorized Signature: Thomas C. Schmitt Date: 3/23/12State of OhioCounty of Erie, to-wit:Taken, subscribed, and sworn to before me this 23<sup>rd</sup> day of March, 2012.My Commission expires 6/14/15, 20    .

AFFIX SEAL HERE

NOTARY PUBLIC

Sharon Dangerfield