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[METRIC]
A-A-272B
November 22, 2005
SUPERSEDING
A-A-272A
June 7, 1995

COMMERCIAL ITEM DESCRIPTION

Caulking Compounds

The General Services Administration has authorized the use of this commercial item description by all federal agencies.

1. SCOPE. This Commercial Item Description covers three types of 1-part caulking compounds suitable for use as recommended by the manufacturers for sealing, caulking, filling, leveling and glazing in general exterior architectural service and structures. Unless otherwise specified, these requirements are predicated on caulking applied to maximum joints 0.375" wide by 0.375" deep, filled by either cartridge injection or hand spatula.

2. CLASSIFICATION.

2.1 Type II - Siliconized Acrylic Latex caulk is water based. Acrylic caulks have fair adhesion to most building materials and are available in a wide range of colors. Acrylic based caulks are not true elastomers and tend to lose flexibility after a few years of outdoor exposure. Acrylic caulks are paintable with both oil and water based paints.

2.2 Type III - Butyl Rubber is a true elastomer caulk. Butyl rubber is solvent based. Butyl rubber caulk has excellent adhesion to most building materials. Butyl rubber is suitable for extreme outdoor exposure to water, sunlight, high and low temperature and expansion joint movement due to wind-loading or settling. Butyl rubber caulking can be applied in more inclement weather and is paintable with either solvent or latex paints.

2.3 Type IV - 100% Silicone caulk is a true elastomer caulk. Silicone caulk adheres to most building materials, and has excellent adhesion to glass. Silicone caulk is suitable for extreme outdoor service exposure to water, sunlight, high and low temperatures and expansion joint movements. Silicone caulks generally require adhesion primers for paint to adhere.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any other data which may improve this document should be sent to: General Services Administration, Heartland Global Supply (6FLE), 1500 E. Bannister Rd, Atrium, Kansas City, Missouri 64131.

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3. SALIENT CHARACTERISTICS

Caulk Requirements				
Requirements	**Type II, Siliconized Acrylic Latex**	**Type III, Butyl Rubber**	**Type IV, 100% Silicone**	**Test Methods**
3.1 Total Joint Movement (maximum extension-compression)	15% See Notes	15% See Notes	50% See Notes	ASTM E 1399
3.2 Shelf Life (minimum months)	24	18	24	Manufacturer's Certification
3.3 Standard Colors	White, Dark Gray, Light Gray, Bronze, Cedar, Redwood, Beige, Dark Brown, Light Brown.	White, Gray, Black, Bronze, Off-White	White, Gray, Black, Bronze, Clear	Manufacturer's Color Standard
3.4 Application Temperature, Celsius (Fahrenheit)	10 to 32 (50 to 90)	5 to 50 (41 to 122)	5 to 60 (41 to 140)	See Notes
3.5 Service-Temperature range – cured sealant, Celsius (Fahrenheit)	-34 to 82 (-29 to 180)	-45 to 95 (-48 to 203)	-50 to 120 (-58 to 248)	See Notes
3.6 Expected years of installed service (minimum years)	15	20	20	See Notes
3.7 Time to Paint (maximum)	24 Hours	24 Hours	24 Hours	See Notes
3.8 Extrudability (minimum)	30 mls/min (1 fl oz/ min)	30 mls/min (1 fl oz/ min)	30 mls/min (1 fl oz/ min)	See Notes
3.9 Artificial Weathering:				
Washout	None	-	-	ASTM C732
Washout	-	None	None	ASTM C792
Slump	None	-	-	ASTM C732
Slump	-	None	None	ASTM C792
Cracking	None	-	-	ASTM C732
Cracking	-	None	None	ASTM C792
Discoloration	None	None	None	ASTM C732
Chalking	-	None	None	ASTM C792
Chalking	None	-	-	ASTM C732
3.10 Volume Shrinkage (maximum)	30%	25%	15%	ASTM C733
3.11 Low Temperature Flexibility	No cracks or adhesion loss	No cracks or adhesion loss	No cracks or adhesion loss	ASTM C736
3.12 Extension Recovery (minimum)	75%	-	-	ASTM D736

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Caulk Requirements. Cont.				
3.13 Peel Strength (min) Grams/ linear cm (lbs./ linear inch)	350.0 (5 lbs./in)	700.0 (10 lbs./in)	840.0 (12 lbs./in)	ASTM C794
3.14 Tenacity	No cracks	No cracks	No cracks	ASTM C711
3.15 Slump (mm maximum)	4.0	3.8	4.0	ASTM D2202
3.16 Stain Index (maximum)				
S = Papers Stained:	3.0	2.5	0.0	ASTM D2203
T = Stain Width mm:	-	1.0	-	ASTM D2203
3.17 Tack Free Time (maximum hours)	6.0	24.0	24.0	ASTM D2377
3.18 Hardness (maximum) Shore A	45	40	50	ASTM C679
3.19 "Bubbling" of 1-part, elastomeric solvent-release type caulks (% area)	N/A	10% maximum	N/A	ASTM C712
3.20 Consistency	See Notes	See Notes	See Notes	

Notes:

3.1: Example: ±7.5% in extension and compression = 15% of average joint width.

3.2: When stored above freezing and below 80° F.

3.3: As specified in the contract or P.O.

3.4: Minimum air and surface temperature until cured. Manufacturer tests shall be predicated on applicable and reproducible scientific methods.

3.5: Manufacturer tests shall be predicated on applicable and reproducible scientific methods.

3.6: Manufacturer tests shall be predicated on applicable and reproducible scientific methods.

3.7: Paint shall be applied in accordance with the caulking manufacturer's instructions. Manufacturer tests shall be predicated on applicable and reproducible scientific methods.

3.8: Note: Essential Acceptance Test: Until shelf life expiration, 3 persons shall each be able to discharge a minimum of one fluid ounce of caulk into a measuring container within one minute, using a manual caulking gun. The caulk shall be at 55° F and the plastic nozzle shall be cut to a 3/16 inch inside diameter.

3.10: Note: Essential Acceptance Test.

3.11: Butyl rubber: no cracking; no separation; no delamination; no adhesion loss; Test Method: ASTM C736.

3.17: Note: Essential Acceptance Test.

3.20: Note: Essential Acceptance Test: Type II, III and IV in cartridge packaging. Randomly select and test two cartridges for each type and color. Cut a 1/8 inch inside diameter hole at the tip of each cartridge. Using normal manual effort, failure to discharge all caulk before the traveling piston reaches the bottom of two cartridges

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shall fail the entire delivery lot. "Work" the above discharged caulk onto a flat non-porous surface with a spatula. Caulk that is not homogenous, creamy, free from obvious lumps, seeds, coalesced caulk, unprocessed materials or particles shall fail the entire delivery lot.

4. REGULATORY REQUIREMENTS

4.1 Material Safety Data Sheets. Material Safety Data Sheets (MSDS) shall be submitted in accordance with FED-STD-313D.

4.2 Recovered Materials and Restricted Materials. The manufacturer shall utilize recovered materials to the maximum extent possible. There shall be no lead, mercury, or hexavalent chromium used in the formulation of the sealant. Maximum background lead content shall be 0.06% (600 parts per million), weight basis of dry film determined in accordance with ASTM D 3335.

5. QUALITY ASSURANCE PROVISIONS

5.1 Contractors Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and the product conforms to the producer's own drawings, specification(s) standards and quality assurance practices, and is the same product offered for sale in the commercial marketplace. The Government reserves the right to require proof of such conformance prior to the first delivery and thereafter as may be otherwise provided for under the provisions of the contract.

5.2 ASTM. Use the latest method in effect on the date of the solicitation or order. ASTM standards are available from the ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

5.3 Preservation, packaging, packing and marking. Unless otherwise specified in the contract or order, each cartridge shall contain a minimum of 10.3 fluid ounces of deliverable caulk; each shipping container may contain up to 15 cartridges; marking shall be normal commercial.

6. NOTES

6.1 National Stock Numbers (NSNs). A list of NSNs assigned that correspond to this CID. The list may not be indicative of all possible NSNs associated with the CID.

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NSN	Color
Type II - Siliconized Acrylic Latex Caulk	
8030-01-075-1156	White
8030-01-261-6865	Beige
8030-01-261-6866	Bronze
8030-01-261-6868	Cedar
8030-01-261-6870	Light Brown
8030-01-261-6871	Medium Gray
8030-01-261-6872	Dark Brown
8030-01-347-0968	White
Type III - Butyl Rubber Caulk	
8030-01-309-9833	White
8030-01-309-9834	Gray
8030-00-577-4740	Black
8030-00-160-6899	Black
8030-00-243-0956	Black
Type IV - 100% Silicone Caulk	
8030-00-180-6339	Clear
8030-01-347-0969	Clear

6.2 Additional Information. Type I Oil Based caulk has been deleted. It no longer meets the requirements set forth in this document.

Military Custodians:
Navy - SH
AF - 99

Coordinating Activity: Army - MR

Preparing Activity:
GSA-FSS