



**Bellofram**<sup>TM</sup>  
Silicones

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# BELLOFRAM Closed Cell Silicone Sponge Extrusion Products

Bellofram Silicones extruded closed cell silicone sponge profiles are used when difficult sealing problems require a combination of complex gasket shapes and extreme flexibility. Our full in-house die making capabilities allow us to produce cords, rectangles, tubes, and any other complex geometries. Our in-house mixing provides a choice of materials with a wide compression deflection rating, ranging from ASTM D 1056 2D1 soft density to ASTM D 1056 2D5 extra firm density, with a temperature range of -85° to 400°F for continuous use. The self-forming skin enhances the profile's water absorption resistance. Need to meet a BMS requirement? No problem! Bellofram Silicones is a certified supplier of BMS 1-23 and BMS 1-60 products. We offer a flame retardant version in each density range that will make sealing possible in extreme environments. A fully certified NSF/ANSI 51 version produced from FDA ingredients is available, in applications where FDA compliance is required. Bellofram Silicones extruded closed cell silicone sponge profiles are available in any color to aide to the aesthetics of your assembly.



## MATERIAL PROPERTIES FOR CLOSED CELL SILICONE SPONGE EXTRUDED PRODUCTS

COMPOUND	ASTM-D-1056 DESIGNATION	COMPRESSION DEFLECTION (PSI)	HEAT AGE 22 hrs @ +150° C	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +100°C	LOW-TEMPERATURE FLEX, 5 hrs @ -55°C
<b>5104</b>	ASTM-D-1056 2D1	2 – 5	Change in Compression Deflection ±5%	10% MAX	30% MAX	PASS
<b>5204</b>	ASTM-D-1056 2D2	5 – 9			27% MAX	PASS
<b>5304</b>	ASTM-D-1056 2D3	9 – 13			25% MAX	PASS
<b>5404</b>	ASTM-D-1056 2D4	13 – 17			25% MAX	PASS
<b>5504</b>	ASTM-D-1056 2D5	17 – 25			22% MAX	PASS

## MATERIAL PROPERTIES FOR FLAME RETARDANT SILICONE SPONGE EXTRUDED PRODUCTS

COMPOUND	ASTM-D-1056 DESIGNATION	COMPRESSION DEFLECTION (PSI)	HEAT AGE 22 hrs @ +150° C	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +100°C	LOW-TEMPERATURE FLEX, 5 hrs @ -55°C	MEETS BURN REQUIREMENTS OF UL 94 V-0
<b>5109</b>	ASTM-D-1056 2D1	2 – 5	Change in Compression Deflection ±5%	10% MAX	35% MAX	PASS	YES
<b>5209</b>	ASTM-D-1056 2D2	5 – 9			35% MAX	PASS	YES
<b>5309</b>	ASTM-D-1056 2D3	9 – 13			35% MAX	PASS	YES
<b>5409</b>	ASTM-D-1056 2D4	13 – 17			35% MAX	PASS	YES
<b>5509</b>	ASTM-D-1056 2D5	17 – 25			35% MAX	PASS	YES

## MATERIAL PROPERTIES FOR NSF/ANSI 51 CERTIFIED SILICONE SPONGE EXTRUDED PRODUCTS

COMPOUND	ASTM-D-1056 DESIGNATION	COMPRESSION DEFLECTION (PSI)	HEAT AGE 22 hrs @ +150° C	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +100°C	LOW-TEMPERATURE FLEX, 5 hrs @ -55°C	NSF/ANSI 51 CERTIFIED
<b>5104-NSF</b>	ASTM-D-1056 2D1	2 – 5	Change in Compression Deflection ±5%	10% MAX	47% MAX	PASS	YES
<b>5204-NSF</b>	ASTM-D-1056 2D2	5 – 9			47% MAX	PASS	YES
<b>5304-NSF</b>	ASTM-D-1056 2D3	9 – 13			58% MAX	PASS	YES
<b>5404-NSF</b>	ASTM-D-1056 2D4	13 – 17			46% MAX	PASS	YES
<b>5504-NSF</b>	ASTM-D-1056 2D5	17 – 25			42% MAX	PASS	YES

## BMS 1-60 CLOSED CELL SILICONE SPONGE

COMPOUND	GRADE DESIGNATION	COLOR	COMPRESSION DEFLECTION (PSI)	DENSITY lb/ft³ max	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +212°F	ELONGATION %, MIN	FLAMMABILITY MAX	HIGH TEMPERATURE STABILITY 70 hrs @ +350° F
<b>5129-BMS</b>	Grade A	Blue-Grey	2 – 6	37	15% MAX	35% MAX	100% MAX	15.0 seconds extinguish time 3.0 seconds drip extinguish time 4.0 inches maximum burn length	No evidence of cracking, charring, surface tackiness or other forms of degradation
<b>5329-BMS</b>	Grade B	Blue-Grey	6 – 12	44	10% MAX				
<b>5529-BMS</b>	Grade C	Blue-Grey	12 – 22	53	10% MAX				

## BMS 1-23 CLOSED CELL SILICONE SPONGE

COMPOUND	COMPRESSION DEFLECTION (PSI)	COMPRESSION SET 22 hrs @ +212°F	WATER ABSORPTION	CORROSION	HEAT AGE 72 hrs @ +350° F	ELONGATION %, MIN
<b>5304-BMS</b>	6 – 14	35% MAX	10% MAX	No Effect	Shrinkage 5% MAX Disintegration None	150% MAX

# BELLOFRAM Solid Silicone Elastomer Extrusions

Extensive expertise in custom formulations and toolmaking capabilities allow Bellofram Silicones to produce solid silicone elastomer extrusions in almost limitless shapes and hardnesses, and in diameters up to 2.500". Our extruded rubber cords, tubes, and custom profiles may be used to make gaskets, seals, and O-rings. They may also be used as grips and handles to ensure worker safety when operating hoses and nozzles. Larger diameter rubber extrusions are popular choices as bumpers and guards for equipment protection. Bellofram Silicones also offers solid silicone rubber extruded materials that can withstand 500,000 flexes, NSF/ANSI 51 certified versions from FDA ingredients, as well as commercial-grade silicones that are maintenance-free in less demanding environments. Bellofram Silicones solid extruded products are very resistant to compression set, high and low temperatures. Multiple extrusion manufacturing and production lines allow us to produce virtually any required quantities with very short lead times. Want to get started right away? No problem! Just refer to the helpful charts below to match one of our 30 to 80 durometer SHORE "A" compounds with a profile of your design, and find a quick solution to even your most complex sealing needs. All compounds have a continuous standard operating temperature of -85° to 400°F.



MATERIAL PROPERTIES OF BELLOFRAM HIGH TEAR AND FLEX RESISTANT SOLID SILICONE EXTRUDED PRODUCTS												
SOLID SILICONE EXTRUDED PRODUCTS TO SPEC TO SPEC A-A-59588 CL38, GR30, GR50					ASTM D395	HEAT AGE, 70 Hours @ +200 °C (ASTM D573)			ASTM D2137	ASTM D471	ASTM D813	ASTM D2632
COMPOUND MODEL	DUROMETER, SHORE "A"	TENSILE STRENGTH min PSI	ELONGATION % min.	TEAR RESISTANCE, PPI	COMPRESSION SET, 70 Hours @ +100°C	HARDNESS CHANGE	TENSILE CHANGE	ELONGATION CHANGE	BRITTLE POINT, min. °C (°F)	WATER IMMERSION, VOLUME CHANGE %	DeMATTIA FLEX, (1/2 inch max crack growth)	IMPACT RESILIENCE, min %
<b>6305</b>	30 ± 5	1000	500	150	25	± 5	-20%	-35%	-70 (-94)	+5	500,000 cycles	40
<b>6505</b>	30 ± 5	1200	500	150	20	± 10	-25%	-35%	-70 (-94)	+5	140,000 cycles	45

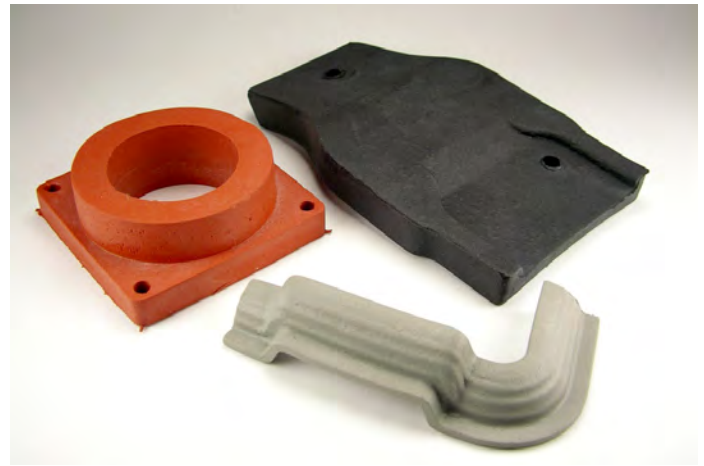
MATERIAL PROPERTIES OF BELLOFRAM SOLID SILICONE EXTRUDED PRODUCTS						
COMPOUND MODEL	ASTM D2000-08 DESIGNATION	DUROMETER SHORE "A"	TENSILE (PSI)	HEAT AGE, 70 Hours @ +225 °C	OIL IMMERSION IRM 903 70 hrs @ +150 °C	COMPRESSION SET, 22 Hours @ +175°C
<b>6304</b>	ASTM D2000 M1GE305	30 ± 5	1175	Change in Tensile Strength, ±30% Change in Elongation, -50% Change in Durometer, ±15 pts	Volume change, +63%	28%
<b>6404</b>	ASTM D2000 M1GE405	40 ± 5	1150		Volume change, +61%	42%
<b>6504</b>	ASTM D2000 M1GE505	50 ± 5	930		Volume change, +59%	61%
<b>6604</b>	ASTM D2000 M1GE605	60 ± 5	925		Volume change, +46%	33%
<b>6704</b>	ASTM D2000 M1GE705	70 ± 5	820		Volume change, +41%	42%
<b>6804</b>	ASTM D2000 M1GE805	80 ± 5	810		Volume change, +35%	40%

MATERIAL PROPERTIES OF BELLOFRAM SOLID SILICONE EXTRUDED PRODUCTS							
COMPOUND MODEL	ASTM D2000-08 DESIGNATION	DUROMETER SHORE "A"	TENSILE PSI	HEAT AGE, 70 Hours @ +225 °C	OIL IMMERSION IRM 903 70 hrs @ +150 °C	COMPRESSION SET, 22 Hours @ +175°C	MEETS BURN REQUIREMENTS OF UL 94 V-0
<b>6309</b>	ASTM D2000 M1GE305	30 ± 5	725	Change in Tensile Strength, ±30% Change in Elongation, -50% Change in Durometer, ±15 pts	Volume change, +80%	50% MAX	PASS
<b>6409</b>	ASTM D2000 M1GE405	40 ± 5				50% MAX	PASS
<b>6509</b>	ASTM D2000 M1GE505	50 ± 5				50% MAX	PASS
<b>6609</b>	ASTM D2000 M1GE605	60 ± 5				50% MAX	PASS
<b>6709</b>	ASTM D2000 M1GE705	70 ± 5				50% MAX	PASS
<b>6809</b>	ASTM D2000 M1GE805	80 ± 5				50% MAX	PASS

MATERIAL PROPERTIES OF BELLOFRAM SOLID SILICONE EXTRUDED PRODUCTS							
COMPOUND MODEL	ASTM D2000-08 DESIGNATION	DUROMETER SHORE "A"	TENSILE (PSI)	HEAT AGE, 70 Hours @ +225 °C	OIL IMMERSION IRM 903 70 hrs @ +150 °C	COMPRESSION SET, 22 Hours @ +175°C	NSF/ANSI 51 CERTIFIED
<b>6304-NSF</b>	ASTM D2000 M1GE305	30 ± 5	1175	Change in Tensile Strength, ±30% Change in Elongation, -50% Change in Durometer, ±15 pts	Volume change, +63%	28%	YES
<b>6404-NSF</b>	ASTM D2000 M1GE405	40 ± 5	1150		Volume change, +61%	42%	YES
<b>6504-NSF</b>	ASTM D2000 M1GE505	50 ± 5	930		Volume change, +59%	61%	YES
<b>6604-NSF</b>	ASTM D2000 M1GE605	60 ± 5	925		Volume change, +46%	33%	YES
<b>6704-NSF</b>	ASTM D2000 M1GE705	70 ± 5	820		Volume change, +41%	42%	YES
<b>6804-NSF</b>	ASTM D2000 M1GE805	80 ± 5	810		Volume change, +35%	40%	YES

# BELLOFRAM Closed Cell Silicone Sponge Molded Products

Bellofram Silicones is one of a very small number of closed cell silicone sponge molded elastomer manufacturers. Our own in-house mixing gives you the choice of materials with a wide compression deflection rating, from ASTM D 1056 2D1 soft density to ASTM D 1056 2D5 extra firm density, with a temperature range of -85° to 400°F for continuous use. The self-forming skin enhances product resistance to water absorption and protects from contaminants. Need to meet a BMS requirement? Bellofram is a certified supplier of BMS 1-23 and BMS 1-60 molded products. We offer a flame retardant version in each density range that will make sealing possible in extreme environments. A fully certified NSF/ANSI 51 version produced from FDA ingredients is available, in applications where FDA compliance is required. Available in any color to aide to the aesthetics of your assembly.



MATERIAL PROPERTIES FOR CLOSED CELL SILICONE SPONGE MOLDED PRODUCTS						
COMPOUND	ASTM-D-1056 DESIGNATION	COMPRESSION DEFLECTION (PSI)	HEAT AGE 22 hrs @ +150° C	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +100°C	LOW-TEMPERATURE FLEX, 5 hrs @ -55°C
<b>7104</b>	ASTM-D-1056 2D1	2 – 5	Change in Compression Deflection ±5%	10% MAX	41% MAX	PASS
<b>7204</b>	ASTM-D-1056 2D2	5 – 9			39% MAX	PASS
<b>7304</b>	ASTM-D-1056 2D3	9 – 13			19% MAX	PASS
<b>7404</b>	ASTM-D-1056 2D4	13 – 17			16% MAX	PASS
<b>7504</b>	ASTM-D-1056 2D5	17 – 25			23% MAX	PASS

MATERIAL PROPERTIES FOR FLAME RETARDANT SILICONE SPONGE MOLDED PRODUCTS							
COMPOUND	ASTM-D-1056 DESIGNATION	COMPRESSION DEFLECTION (PSI)	HEAT AGE 22 hrs @ +150° C	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +100°C	LOW-TEMPERATURE FLEX, 5 hrs @ -55°C	MEETS BURN REQUIREMENTS OF UL 94 V-0
<b>7109</b>	ASTM-D-1056 2D1	2 – 5	Change in Compression Deflection ±5%	10% MAX	34% MAX	PASS	YES
<b>7209</b>	ASTM-D-1056 2D2	5 – 9			35% MAX	PASS	YES
<b>7309</b>	ASTM-D-1056 2D3	9 – 13			35% MAX	PASS	YES
<b>7409</b>	ASTM-D-1056 2D4	13 – 17			32% MAX	PASS	YES
<b>7509</b>	ASTM-D-1056 2D5	17 – 25			32% MAX	PASS	YES

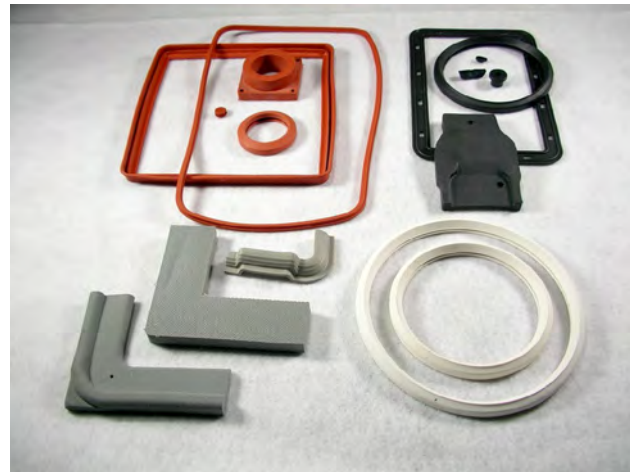
MATERIAL PROPERTIES FOR NSF/ANSI 51 CERTIFIED SILICONE SPONGE MOLDED PRODUCTS							
COMPOUND	ASTM-D-1056 DESIGNATION	COMPRESSION DEFLECTION (PSI)	HEAT AGE 22 hrs @ +150° C	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +100°C	LOW-TEMPERATURE FLEX, 5 hrs @ -55°C	NSF/ANSI 51 CERTIFIED
<b>7104-NSF</b>	ASTM-D-1056 2D1	2 – 5	Change in Compression Deflection ±5%	10% MAX	42% MAX	PASS	YES
<b>7204-NSF</b>	ASTM-D-1056 2D2	5 – 9			38% MAX	PASS	YES
<b>7304-NSF</b>	ASTM-D-1056 2D3	9 – 13			19% MAX	PASS	YES
<b>7404-NSF</b>	ASTM-D-1056 2D4	13 – 17			16% MAX	PASS	YES
<b>7504-NSF</b>	ASTM-D-1056 2D5	17 – 25			23% MAX	PASS	YES

BMS 1-60 CLOSED CELL SILICONE SPONGE									
COMPOUND	GRADE DESIGNATION	COLOR	COMPRESSION DEFLECTION (PSI)	DENSITY lb/ft³ max	WATER ABSORPTION	COMPRESSION SET 22 hrs @ +212°F	ELONGATION %, MIN	FLAMMABILITY MAX	HIGH TEMPERATURE STABILITY 70 hrs @ +350° F
<b>7129-BMS</b>	Grade A	Blue-Grey	2 – 6	37	15% MAX	35% MAX	100% MAX	15.0 seconds extinguish time 3.0 seconds drip extinguish time 4.0 inches maximum burn length	No evidence of cracking, charring, surface tackiness or other forms of degradation
<b>7329-BMS</b>	Grade B	Blue-Grey	6 – 12	44	10% MAX				
<b>7529-BMS</b>	Grade C	Blue-Grey	12 – 22	53	10% MAX				

BMS 1-23 CLOSED CELL SILICONE SPONGE						
COMPOUND	COMPRESSION DEFLECTION (PSI)	COMPRESSION SET 22 hrs @ +212°F	WATER ABSORPTION	CORROSION	HEAT AGE 72 hrs @ +350° F	ELONGATION %, MIN
<b>7304-BMS</b>	6 – 14	35% MAX	10% MAX	No Effect	Shrinkage 5% MAX Disintegration None	150% MAX

# BELLOFRAM Solid Silicone Molded Products

Bellofram Silicones offers solid silicone molded products, available in 30 to 80 shore "A" durometer, with a temperature range of -85° to 400°F for continuous use. Material choices range from economical commercial grade to high-performance low-temperature, flex and tear resistant specification grades. These products can be tinted to most colors. Our in-house mixing of custom formulations also allow us to produce materials to the ASTM, SAE, MIL-STD, and other military and industrial specifications. Fully certified NSF/ANSI 51 formulations produced with FDA ingredients are also available.



Want to get started right away? No problem! Just refer to the charts below to match one of our 30 to 80 durometer SHORE "A" compounds with a profile of your design, for a quick solution to even your most complex sealing needs.

MATERIAL PROPERTIES OF BELLOFRAM HIGH TEAR AND FLEX RESISTANT SOLID SILICONE MOLDED PRODUCTS												
SOLID SILICONE EXTRUDED PRODUCTS TO SPEC TO SPEC A-A-59588 CL3B, GR30, GR50					ASTM D395	HEAT AGE, 70 Hours @ +200 °C (ASTM D573)			ASTM D2137	ASTM D471	ASTM D813	ASTM D2632
COMPOUND MODEL	DUROMETER, SHORE "A"	TENSILE STRENGTH min PSI	ELONGATION % min.	TEAR RESISTANCE, PPI	COMPRESSION SET, 70 Hours @ +100°C	HARDNESS CHANGE	TENSILE CHANGE	ELONGATION CHANGE	BRITTLE POINT, min. °C (°F)	WATER IMMERSION, VOLUME CHANGE %	DeMATTIA FLEX, (1/2 inch max crack growth)	IMPACT RESILIENCE, min %
<b>8305</b>	30 ± 5	1000	500	150	25	± 5	-20%	-35%	-70 (-94)	+5	500,000 cycles	40
<b>8505</b>	30 ± 5	1200	500	150	20	± 10	-25%	-35%	-70 (-94)	+5	140,000 cycles	45

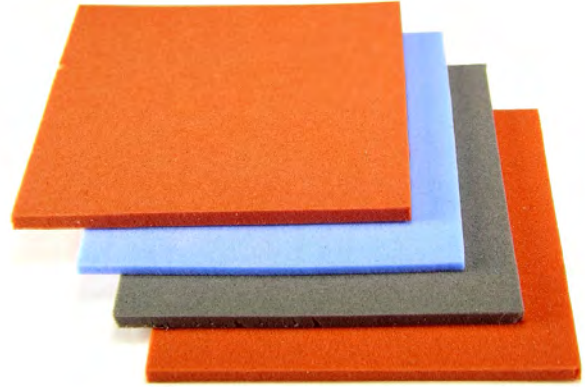
MATERIAL PROPERTIES OF BELLOFRAM SOLID SILICONE MOLDED PRODUCTS						
COMPOUND MODEL	ASTM D2000-08 DESIGNATION	DUROMETER SHORE "A"	TENSILE (PSI)	HEAT AGE, 70 Hours @ +225 °C	OIL IMMERSION IRM 903 70 hrs @ +150 °C	COMPRESSION SET, 22 Hours @ +175°C
<b>8304</b>	ASTM D2000 M1GE305	30 ± 5	1175	Change in Tensile Strength, ±30% Change in Elongation, -50% Change in Durometer, ±15 pts	Volume change, +80%	14%
<b>8404</b>	ASTM D2000 M1GE405	40 ± 5	1150		Volume change, +62%	16%
<b>8504</b>	ASTM D2000 M1GE505	50 ± 5	930		Volume change, +49%	18%
<b>8604</b>	ASTM D2000 M1GE605	60 ± 5	925		Volume change, +47%	26%
<b>8704</b>	ASTM D2000 M1GE705	70 ± 5	820		Volume change, +38%	28%
<b>8804</b>	ASTM D2000 M1GE805	80 ± 5	810		Volume change, +30%	23%

MATERIAL PROPERTIES OF BELLOFRAM FLAME RETARDANT SOLID SILICONE MOLDED PRODUCTS							
COMPOUND MODEL	ASTM D2000-08 DESIGNATION	DUROMETER SHORE "A"	TENSILE (PSI)	HEAT AGE, 70 Hours @ +225 °C	OIL IMMERSION IRM 903 70 hrs @ +150 °C	COMPRESSION SET, 22 Hours @ +175°C	MEETS BURN REQUIREMENTS OF UL 94 V-0
<b>8309</b>	ASTM D2000 M1GE305	30 ± 5	1175	Change in Tensile Strength, ±30% Change in Elongation, -50% Change in Durometer, ±15 pts	Volume change, +64%	14%	PASS
<b>8409</b>	ASTM D2000 M1GE405	40 ± 5	1150		Volume change, +62%	16%	PASS
<b>8509</b>	ASTM D2000 M1GE505	50 ± 5	930		Volume change, +49%	18%	PASS
<b>8609</b>	ASTM D2000 M1GE605	60 ± 5	925		Volume change, +47%	26%	PASS
<b>8709</b>	ASTM D2000 M1GE705	70 ± 5	820		Volume change, +38%	28%	PASS
<b>8809</b>	ASTM D2000 M1GE805	80 ± 5	810		Volume change, +30%	23%	PASS

MATERIAL PROPERTIES OF BELLOFRAM NSF/ANSI 51 CERTIFIED SOLID SILICONE MOLDED PRODUCTS							
COMPOUND MODEL	ASTM D2000-08 DESIGNATION	DUROMETER SHORE "A"	TENSILE (PSI)	HEAT AGE, 70 Hours @ +225 °C	OIL IMMERSION IRM 903 70 hrs @ +150 °C	COMPRESSION SET, 22 Hours @ +175°C	NSF/ANSI 51 CERTIFIED
<b>8304-NSF</b>	ASTM D2000 M1GE305	30 ± 5	1175	Change in Tensile Strength, ±30% Change in Elongation, -50% Change in Durometer, ±15 pts	Volume change, +64%	14%	YES
<b>8404-NSF</b>	ASTM D2000 M1GE405	40 ± 5	1150		Volume change, +62%	16%	YES
<b>8504-NSF</b>	ASTM D2000 M1GE505	50 ± 5	930		Volume change, +49%	18%	YES
<b>8604-NSF</b>	ASTM D2000 M1GE605	60 ± 5	925		Volume change, +47%	26%	YES
<b>8704-NSF</b>	ASTM D2000 M1GE705	70 ± 5	820		Volume change, +38%	28%	YES
<b>8804-NSF</b>	ASTM D2000 M1GE805	80 ± 5	810		Volume change, +30%	23%	YES

# BELLOFOAM™ Closed Cell Silicone Sponge Sheets

BELLOFOAM™ from Bellofram Silicones is the lightest high-consistency closed cell silicone rubber sheeting material on the market. It contains truly closed cells, as determined by the stringent ASTM-D-1056 water absorption under vacuum method, eliminating wicking. The formulation and construction of these sheets allows for continuous operation of materials over a wide temperature range of -85° to +400°F, with outstanding recovery after compression. The sheets skived from buns can be supplied from 0.125” to 2.00” thickness, or buns can be skived into sheets using a customer’s own equipment.



There are three available ASTM-D-1056 hardness versions of the standard sheet, including one with the necessary enhanced fire retardant additives to meet UL94 V-0 specifications, and a second version with fluorosilicone sponge properties, meeting the requirements of AMS 3323. With these and other available options, BELLOFOAM™ silicone foam rubber sponge sheets cover a wide range of demanding physical, temperature, and chemical environments. BELLOFOAM™ Closed Cell Silicone Foam Rubber Sponge Sheets are also available for direct order via our online shopping cart. Please use the chart below to select the correct part number for your requirements.

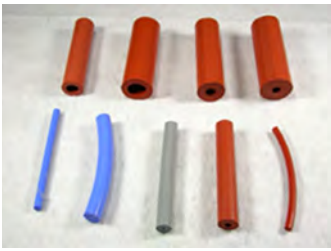
## BELLOFOAM™ BENEFITS:

- Low flame
- Very low compression set
- Soft compression force
- Handles temperature extremes
- UV & weather resistant
- Flame retardant (BELLOFOAM™ 7629)

BELLOFOAM™ CLOSED CELL SILICONE SPONGE SHEETING								
BELLOFOAM™ MATERIAL TYPE	COLOR	COMPRESSION DEFLECTION (PSI) ASTM-D-1056	COMPRESSION SET ASTM-D-1056	DENSITY (LBS/FT <sup>3</sup> ) ASTM-D-1056	WATER ABSORPTION ASTM-D-1056	FLAMMABILITY FMVSS302	TEMPERATURE RANGE (°F)	MATERIAL SPECIFICATIONS
<b>7604</b>	ALL	0 to 5	6%	12 MAX	10% MAX	PASS	-85° to +400°	ASTM-D-1056 2D0 ASTM-D-1056 2D1
<b>7704</b>	ALL	5 to 9	6%	20 MAX	10% MAX	PASS	-85° to +400°	ASTM-D-1056 2D2
<b>7804</b>	ALL	9 to 13	4%	30 MAX	10% MAX	PASS	-85° to +400°	ASTM-D-1056 2D3
<b>7629</b>	GREY	0 to 5	25%	12 MAX	10% MAX	PASS	-85° to +400°	ASTM-D-1056 2D0, 2D1 UL 94, V-0

BELLOFOAM™ CLOSED CELL FLUROSILICONE (FVM) SPONGE SHEETING								
MATERIAL	COLOR	CLASS DESIGNATION AMS-3323	COMPRESSION DEFLECTION (PSI) ASTM-D-1056	COMPRESSION SET ASTM-D-1056	DENSITY (LBS/FT <sup>3</sup> ) ASTM-D-1056	FLUID RESISTANCE ASTM D 471 (FUEL B)	TEMPERATURE RANGE (°F)	MATERIAL SPECIFICATIONS
<b>7748</b>	LIGHT BLUE	CLASS 1	2 – 9	25% MAX	43 MAX	WEIGHT CHANGE MAXIMUM 0 – 50%	-85° to +400°	AMS3323 SAE AMS3323

# BELLOFRAM SILICONES Capabilities Gallery



## SOLID SILICONE Cords and Tubes

Bellofram extruded solid silicone cords and tubes can be used to make gaskets, seals and O-rings. They are also used as grips and handles to ensure personnel protection on hoses and nozzles. These parts can be produced up to 2.50", and make excellent bumpers and guards for equipment protection. Our mixing and

compounding capabilities allow us to produce hardness ranges from 30 to 80 shore "A" durometer, using economical commercial grade or high strength specification grade materials.



## SOLID SILICONE Aerospace Gaskets

Bellofram Silicones are industry experts in aerospace silicone gaskets and seals. Our custom molding and compounding processes allow us to produce aircraft window seals that can withstand both runway and in-flight temperature extremes, with materials that exceed BMS requirements. The strategic

embedding of fabrics within our flex resistant silicone adds strength and prevents stretching. Our custom mixes also create extrusions, molded parts, and sheets to stringent military specifications. So, whether your requirements are for highly engineered gaskets, or flame retardant squeak and rattle sponge, we've got you covered.



## CLOSED CELL SILICONE SPONGE Tubing

Bellofram Silicones closed cell sponge tubing is an excellent insulator for piping insulation. Its high temperature rating of 400°F allows it to be used in areas where elastomeric and plastic based insulation tubing fail. At temperatures up to +212°F, it has a useful life of 10 to 20 years. Tooling is available for most ID and OD combinations. Its tough skin

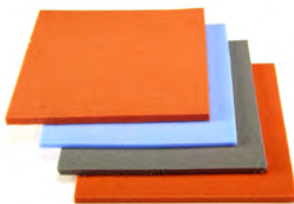
resists nicks and its insulating values keep in the heat or cold. The product comes in 5 hardness ranges of standard silicone sponge, with 3 additional hardness ranges with fire retardant additives.



## MOLDED SILICONE Elastomer Products

Bellofram Silicones is one of a very small number of molded sponge rubber manufacturers. Our silicone molding department produces closed cell sponge in compression deflection ranges from 2 to 27 PSI. Skin on all surfaces enhances cleanability and resists contaminants. Solid silicone construction is available in 30 to 80 shore "A" durometer, and in material choices

from economical commercial grade to high-performance low temperature, flex and tear resistant grades. These products can be tinted to most colors. Organic elastomer choices include Neoprene, Nitrile, FKM, EPDM, and a wide range of others. Our in-house mixing capabilities allow us to easily accommodate custom formulations, including materials to the ASTM, SAE, MIL-STD. Our other military and industrial specifications, and custom compounds can yield open or closed cell construction.



## BELLOFOAM™ CLOSED CELL SILICONE SPONGE Sheetting

BELLOFOAM™ silicone sponge sheets are the lightest and highest consistency silicone sheets on the market. They contain truly closed cells, as determined by the stringent ASTM D1056 water absorption under vacuum method, which eliminates any wicking. Their formulation and construction allows the material to operate

in temperatures ranging from -103° to +400°F, with outstanding recovery after compression. The sheets skived from buns can be supplied from 0.125" to 2" thickness, or the buns can be skived to sheets using your equipment. With three hardness versions of the standard sheet, another version with enhanced fire retardant additives, and a third of fluorosilicone, BELLOFOAM™ covers a wide range of demanding physical, temperature, and chemical environments.



## CLOSED CELL SILICONE SPONGE Rectangular Extrusions

Rectangular closed cell silicone sponge extrusions are our second most popular item. Available sizes range from 0.125" x 0.125" to 2" x 2.50". Extrusion dies are available for most sizes. We have 5 hardness ranges from ASTM D1056 2D1 through 2D5, as well as three hardnesses with fire retardant additive. We can also supply any color you require.



## CLOSED CELL SILICONE SPONGE Cord

Sometimes the simplest shape is the solution to your gasketing or sealing problems. Bellofram Silicones can produce closed cell silicone sponge cord in diameters ranging from 0.062" up to 2.25". Our in-house mixing capabilities allow us to produce materials to all five hardness ranges of ASTM D1056. For aerospace requirements, Bellofram Silicones is on the qualified products

list for Boeing BMS 1-23, and all three hardnesses of BMS 1-60. We are able to produce product with a compression set value of 10%, and in a variety of colors.



## CLOSED CELL SILICONE SPONGE Custom Extrusions

Bellofram Silicones silicone sponge extrusions are used when difficult sealing problems require a combination of complex gasket shapes and extreme flexibility. Our die making capabilities allow customers to specify complex geometric shapes. Our in-house mixing allows for choice of materials with compression deflection rating ranging

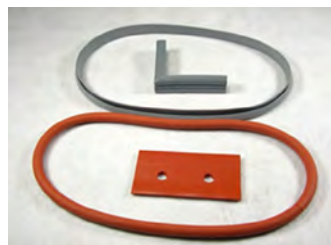
from 2-5 pounds; to a firm 17 to 25 pounds per square inch. The self-forming skin enhances resistance to water absorption. Our low compression set and flame retardant versions make sealing possible in extreme environments. Our choice of colors aids in aesthetics of your assembly.



## SOLID SILICONE Custom Extrusions

Our custom formulations and toolmaking capabilities allow us to produce solid silicone extrusions in almost limitless shapes and hardnesses. We have materials to withstand 100,000 flexes, or commercial grade silicones that will be worry-free in less demanding environments. Bellofram Silicones are

very resistant to compression set, high and low temperatures. Match one of our 30 to 80 durometer shore "A" compounds with a profile of your design to find a solution to your sealing problems. Multiple extrusion lines allow us to produce small and large quantities.



## VULCANIZED AND FABRICATED Silicone Parts

Do you have a large perimeter area that needs to be sealed? Do changing contours on your mating surfaces make a die cut gasket unworkable? Is the center fall out waste from your die cut gasket making your project cost-prohibitive? We can extrude one of our standard shapes or custom produce a profile of your design

and vulcanize the gasket profile to cost effectively meet your sealing needs. Circles, rectangles, and odd shaped gaskets are within our capabilities. Silicone sponge in five hardness ranges, solid silicone in Shore "A" ratings from 30 to 80s, and custom formulations to meet industry and military specifications, as well as a variety of colors, are available.



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