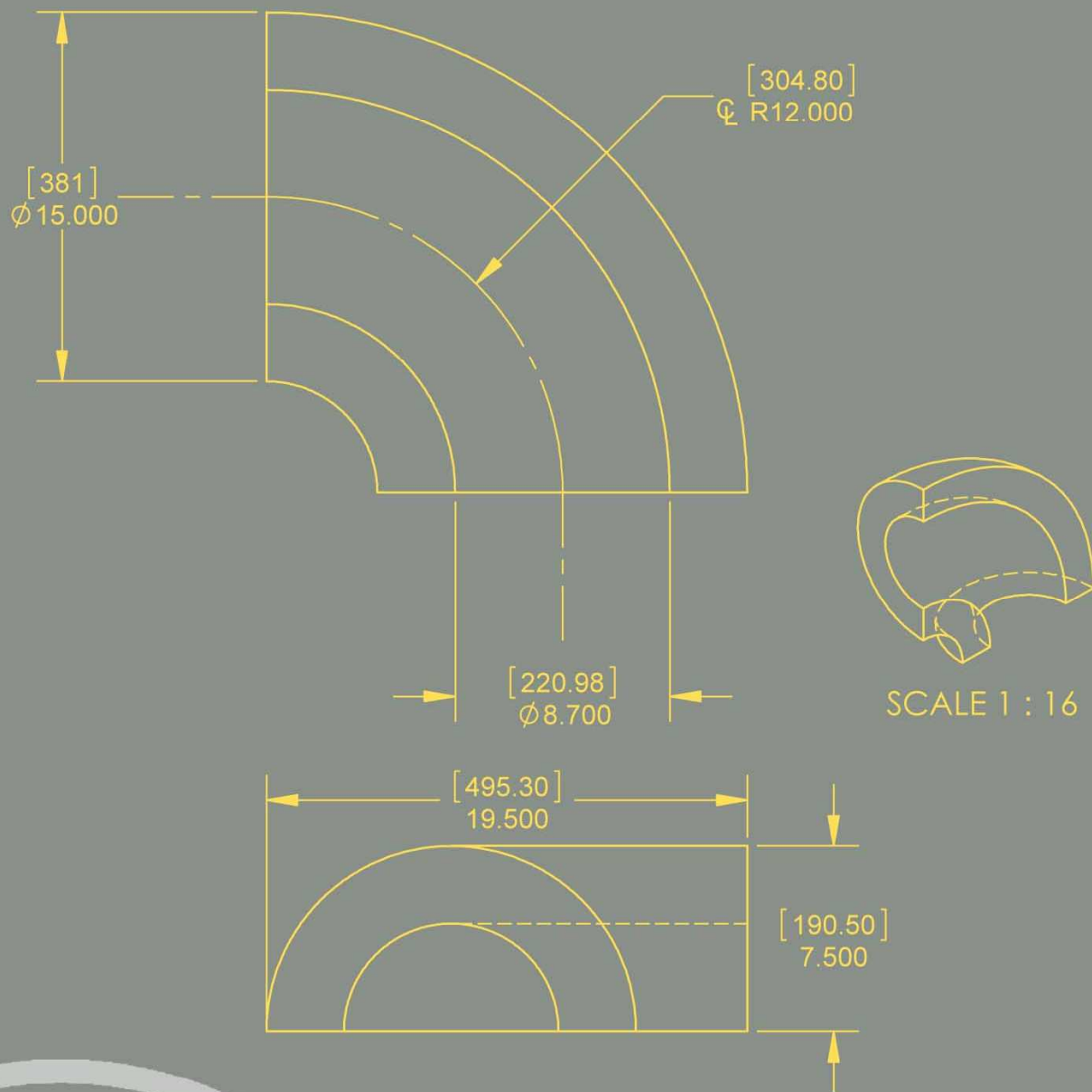


SMC Industries, Inc.





SMC Industries, Inc.

Perlite Product Literature

Molded Perlite Fitting Covers

Outperforms Mitered Fitting Covers

- No glue joints to break or open up
- Butts up to form perfect 90 degree joints

Non Wicking-Will not Absorb Water

- Most insulation systems fail at the fittings
- Use water resistant insulation at these trouble spots
- Leachable Silicate provide secondary defense to protect piping against CUI

Accepted by General Union Policies

- Now over 1700 Sizes Available!



Best Choice with Calcium Silicate

- Abuse resistance of calcium silicate without the absorption problems
- Commonly accepted as an alternate to mitered calcium silicate fittings

Saves Time and Fabrication Costs

- Up to 65% cost savings of mitered fitting covers
- Quicker to install

Asbestos Free Identity System

- Non-toxic, gold identifier throughout

Largest Selection Available in Stock

- Long Radius Butt Weld 90 & 45
- Short Radius Butt Weld 90
- Butt Weld Tees
- Screwed/Socket Weld 90 & 45
- Screwed/Socket Weld Tees
- 2D, 3D & 5D Sweeps
- Traced Lines & Custom Sizes





HIGH TEMPERATURE MOLDED PERLITE FITTING COVERS

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Terms & Conditions

All prices are subject to change without prior notice

All prices F.O.B. Houston, Texas 77015

Standard Payment Terms: ½% Ten Days/Net 30 Days from date of invoice, add 2% per month after 30 days

Warranty & Disclaimer

The information herein is accurate and reliable to the best of SMC Industries, Inc.'s knowledge. But, because SMC Industries, Inc. has no control over our products once they leave our plant, no representation or warranty, expressed or implied, either as to **Merchantability** or **Fitness for a particular purpose** is made as to the performance or results of an installation containing our product which extend the description on the face hereof. If the products otherwise fail to conform to the representations made herein, through no fault of the purchaser, purchaser's exclusive remedy and SMC Industries, Inc.'s sole liability, shall at SMC Industries, Inc.'s options, be the repair or replacement of the nonconforming products or parts thereof, F.O.B. our nearest shipping point. The warranty expires one year from date of purchase. **In no event shall SMC Industries, Inc. be responsible or liable for any incidental, special or consequential damages, which might result from product failure.**

Returns & Allowances

SMC Industries, Inc. considers most material to be specialty items, therefore returns will not be accepted. However, SMC Industries, Inc. will examine each return request on a case by case basis and may allow some material to be returned. No returns of products will be accepted without prior written approval. Where returns are authorized due to causes for which SMC Industries, Inc. is responsible, SMC Industries, Inc. will assume all charges and the full purchase price will be credited. When returns are made for convenience of the purchaser at his/her request and these are approved in advance, in writing, by SMC Industries, Inc., such products returned to the shipping points will be credited at the purchase price less all freight charges, including stopover charges absorbed by SMC Industries, Inc. on the original shipment to the purchaser and full freight charges on the return. SMC Industries, Inc. will also charge for handling and reconditioning. Credit will be based upon the quantity received at SMC Industries, Inc. shipping point in resale condition, as determined by SMC Industries, Inc., plus a 20% restocking charge.

Delayed/Cancelled/Modified Purchase Orders

Due to our limited shipping and staging areas in both our Malvern, PA and Houston, TX facilities, the following terms and conditions will pertain all orders valued at \$2,500 USD or greater. If an order is reduced or cancelled in full, a 20% restocking charge will be applied to all material which was produced specifically for the cancelled/reduced order. Any material which is deemed 'non-stock' will be charged a 100% restocking fee. No restocking fee will be charged for material which was pulled from inventory, or had yet to be pulled. Orders which are delayed more than 10 business days, at the customers request, will be subject to the following detention fee schedule.

Delay Date	Weekly Detention Fee
Within 1 week of ship date	1.25%/week of value of material currently ready to ship (detention fee valuation)
Within 2 weeks of ship date	0.625%/week of value of material currently ready to ship (detention fee valuation)
Prior to 2 weeks of ship date	No detention charges will be incurred

Charges will be incurred starting the day of original ship date. Weekly charges will be incurred at the end of the business day, on the Friday of each week. SMC Industries, Inc., reserves the right to steal material from a delayed order, when and if possible, to fill other open orders. Stealing will allow SMC Industries, Inc. to minimize the floor space of a delayed order. In return, the value of any material stolen will be reduced from value of the delayed order, thus reducing the weekly detention fee incurred. Detention fees will continue to be incurred until the value of material ready to ship falls below \$2,500 USD. All production on the delayed orders will be halted until a new ship date is determined. Only after a release date is determined will any sizes, which require production, be rescheduled. SMC Industries, Inc. will make every attempt to meet this new ship date, but material which requires production will be scheduled as if the purchase order had just been received.

Replacement Materials

SMC Industries, Inc. will replace, at no charge to the customer, any and all incorrect or damaged material deemed to be the fault of SMC Industries, Inc. SMC Industries, Inc. will ship such material by the same or equal freight method as the original shipment. SMC Industries, Inc. will not be responsible for any expedited freight expenses.

Title

Title to the products shall remain SMC Industries, Inc.'s until paid in full by the purchaser. However, risk of loss shall vest in the purchaser at the time of delivery of the products to the carrier.



High Temperature Molded Perlite Fitting Covers (½" - 25" NPS) 2016 Single Layer Base Price

		Single Layer Insulation Thickness								
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"	4½"	5"
½	[15]	\$ 5.85	7.20	9.44	12.32	19.23	26.29	36.05	47.12	50.54
¾	[20]	5.91	7.28	9.76	12.46	20.45	26.59	36.27	47.38	51.79
1	[25]	6.11	7.70	10.71	13.06	21.73	27.40	36.45	47.96	55.20
1¼	[32]	6.39	8.10	11.45	13.63	23.14	28.41	38.69	49.88	57.46
1½	[40]	6.67	8.61	12.16	17.02	24.07	29.78	40.75	51.11	61.90
2	[50]	7.48	9.53	12.74	19.40	24.46	30.65	40.77	56.96	68.33
2½	[65]	8.55	10.44	14.09	21.77	30.02	38.57	48.43	61.33	73.89
3	[80]	9.58	11.94	15.38	22.32	31.13	39.07	48.97	67.08	77.56
3½	[90]	12.78	15.14	19.78	23.51	32.24	44.35	55.91	70.44	82.96
4	[100]	13.72	15.42	21.45	24.70	33.13	46.57	61.96	75.46	90.69
4½*	[115]	14.66	18.93	24.29	29.58	34.01	48.79	68.15	80.93	-
5	[125]	16.98	22.26	27.82	34.31	39.40	52.78	71.05	85.77	98.69
6	[150]	21.73	25.16	33.99	40.56	48.83	65.95	78.83	93.57	109.15
7*	[175]	26.49	30.60	38.15	46.90	60.54	81.69	92.48	105.83	118.27
8	[200]	-	38.95	50.38	63.87	75.95	96.55	112.96	130.63	142.90
9*	[225]	-	45.54	62.94	78.35	95.14	119.86	134.38	157.78	196.55
10	[250]	-	57.92	76.03	91.77	113.63	135.99	158.39	190.10	214.62
11*	[275]	-	69.13	84.21	105.83	125.93	158.61	182.96	216.79	235.30
12	[300]	-	83.81	103.45	127.20	150.67	188.81	217.80	242.76	278.57
14	[350]	-	106.17	124.42	153.79	185.44	229.70	261.75	286.94	344.29
15*	[375]	-	118.00	140.73	173.49	224.38	265.08	298.51	366.35	399.96
16	[400]	-	156.96	164.21	203.27	236.51	297.60	340.91	383.41	421.03
17*	[425]	-	173.19	190.75	222.14	265.75	348.31	383.08	402.40	451.47
18	[450]	-	182.52	204.68	249.78	317.24	380.36	407.76	420.26	468.85
19*	[475]	-	-	226.83	284.25	341.29	441.98	463.06	490.89	533.99
20	[500]	-	-	258.21	328.65	382.40	465.56	526.88	540.08	706.17
21*	[525]	-	-	285.24	346.61	409.23	506.49	574.72	632.96	768.37
22	[550]	-	-	322.92	-	-	-	-	-	-
23*	[575]	-	-	-	-	-	-	-	-	-
24	[600]	-	-	405.26	473.75	543.61	650.73	779.27	886.73	999.19
25*	[625]	-	-	436.53	510.30	585.56	700.93	839.40	955.16	-

Alternate Fitting Type Multipliers

Fitting Type	Multiplier	Fitting Type	Multiplier
Long Radius 90°	1.00	Socket Weld / Screwed Equal Tee (<= 4" NPS)	1.45
Long Radius 45° (< 4" NPS)	1.00	Heavy Walled Socket Weld / Screwed 90° & 45° (<= 4" NPS)	1.50
Long Radius 45° (>= 4" NPS)	0.50	Heavy Walled Socket Weld / Screwed Equal Tee (<= 4" NPS)	2.25
Short Radius 90° (>= 1" NPS)	1.25	Stainless Steel Tubing 90° & 45° (<= 6" NPS)	1.25
Equal Butt Weld Tee (<= 8" NPS)	1.25	Stainless Steel Tubing Equal Tee (<= 6" NPS)	1.90
Socket Weld / Screwed 90° & 45° (<= 4" NPS)	1.15		

All of the sizes listed above may not necessarily be available. Please call 1-800-628-6998, or visit www.smcindustries.com for a list of sizes currently available.

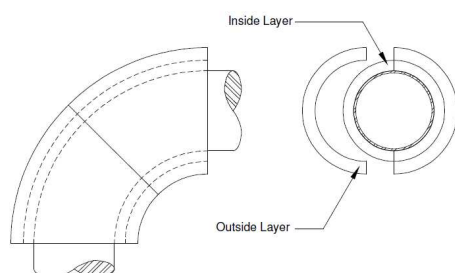


High Temperature Molded Perlite Fitting Covers (4" - 25" NPS) 2016 Double Layer Base Price

		Double Layer Insulation Thickness					
NPS	[DN]	5½"	6"	6½"	7"	7½"	8"
4	[100]	\$ 104.29	119.94	-	-	-	-
4½*	[115]	-	-	-	-	-	-
5	[125]	113.49	-	-	-	-	-
6	[150]	125.52	144.35	166.00	-	-	397.40
7*	[175]	136.01	156.41	-	-	-	-
8	[200]	164.34	188.99	217.33	-	-	489.94
9*	[225]	226.03	259.94	-	-	-	-
10	[250]	246.81	283.83	326.41	375.37	431.68	496.43
11*	[275]	270.60	311.18	357.86	411.54	473.27	-
12	[300]	320.36	368.41	423.67	487.22	560.30	644.35
14	[350]	395.93	455.32	523.62	602.17	692.49	796.36
15*	[375]	459.95	528.95	608.29	699.53	804.46	-
16	[400]	484.18	556.81	640.33	736.38	846.84	973.87
17*	[425]	519.19	597.07	686.63	789.62	908.07	-
18	[450]	539.18	620.05	713.06	820.02	943.02	1,084.48
19*	[475]	614.09	706.20	812.13	933.95	1,074.04	-
20	[500]	812.10	933.91	1,074.00	1,235.10	-	-
21*	[525]	-	-	-	-	-	-
22	[550]	-	-	-	-	-	-
23*	[575]	-	-	-	-	-	-
24	[600]	1,142.40	1,267.40	1,395.80	1,527.80	1,663.40	1,802.40
25*	[625]	-	-	-	-	-	-

High Temperature Molded Perlite Fitting Cover List Price Formula

2016 Base Price × Fitting Type Multiplier (Page 2) = 2016 List Price



SMC's High Temperature Molded Double Layer Perlite Fitting Covers use two individual fitting covers nested over one another. The inside layer, the fitting cover in contact with the pipe, will be a 3" thick fitting. The outside layer will range from 2 ½" to 5" in thickness, depending on total thickness required. Whenever possible, SMC staggers the insulation seams to deter direct heat loss and water penetration into the insulation system.

SMC is constantly adding to its inventory of High Temperature Molded Perlite Fitting Cover molds. ***If you have a size that is not listed above, please call.*** Depending on the size and quantity, we would be glad to quote you on lead time and availability.

All of the sizes listed above may not necessarily be available. Please call 1-800-628-6998, or visit www.smcindustries.com for a list of sizes currently available

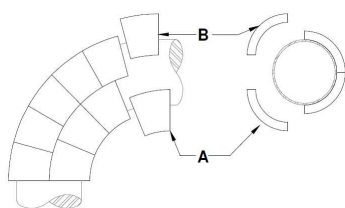


High Temperature Molded Perlite Fitting Covers (26" - 48" NPS) 2016 Large Bore Base Price

		Single Layer Insulation Thickness						
NPS	[DN]	2"	2½"	3"	3½"	4"	4½"	5"
26	[100]	\$ 427.20	543.40	663.60	787.60	915.20	1,046.80	1,182.20
28	[115]	492.80	626.40	764.00	905.60	1,051.40	1,201.40	1,355.40
30	[125]	563.20	715.00	871.20	1,032.00	1,197.00	1,366.40	1,540.20
32	[150]	638.40	809.60	985.80	1,166.40	1,351.80	1,542.00	1,736.80
34	[175]	718.20	910.20	1,107.20	1,309.20	1,516.20	1,728.00	1,945.00
36	[200]	802.60	1,016.60	1,235.60	1,460.00	1,689.80	1,924.80	2,165.00
38	[225]	891.80	1,128.80	1,371.20	1,619.20	1,872.80	2,132.00	2,396.80
40	[250]	985.80	1,246.80	1,513.80	1,786.60	2,065.20	2,349.80	2,640.20
42	[275]	1,084.20	1,370.80	1,663.40	1,962.20	2,267.20	2,578.20	2,895.40
44*	[300]	1,187.48	1,500.52	1,820.00	2,145.92	2,478.28	2,817.08	3,162.60
46*	[350]	1,295.56	1,636.32	1,983.80	2,338.00	2,698.92	3,066.56	3,441.20
48*	[375]	1,408.12	1,777.72	2,154.60	2,538.20	2,929.08	3,326.68	3,731.56

		Double Layer Insulation Thickness					
NPS	[DN]	5½"	6"	6½"	7"	7½"	8"
26	[100]	\$ 1,321.40	1,464.40	1,611.20	1,762.00	1,916.40	2,074.60
28	[115]	1,513.40	1,675.60	1,842.00	2,012.40	2,187.00	2,365.60
30	[125]	1,718.40	1,901.00	2,088.00	2,279.40	2,475.20	2,675.40
32	[150]	1,936.20	2,140.40	2,349.20	2,562.80	2,781.00	3,004.00
34	[175]	2,167.00	2,393.80	2,625.80	2,862.60	3,104.60	3,351.40
36	[200]	2,410.60	2,661.40	2,917.60	3,178.80	3,445.60	3,717.60
38	[225]	2,667.20	2,943.00	3,224.60	3,511.60	3,804.20	4,102.40
40	[250]	2,936.60	3,238.80	3,546.80	3,860.60	4,180.40	4,506.00
42	[275]	3,219.00	3,548.60	3,884.20	4,226.20	4,574.20	4,928.60
44*	[300]	3,514.28	3,872.40	4,236.96	4,608.24	4,985.68	5,369.84
46*	[350]	3,822.28	4,210.36	4,605.16	5,006.68	5,414.64	5,829.60
48*	[375]	4,143.44	4,562.32	4,988.48	5,421.36	5,861.52	6,308.40

Large Bore Ordering & Assembly Instructions



Fitting Cover Type	Number of Pieces	
	A	B
Long Radius 90	8	12
Long Radius 45	4	6

Unlike straight pipe covering quad sections, the same pieces cannot be used to cover a long radius pipe elbow. SMC Large Bore Molded Perlite Fitting Covers have been specially engineered to accomplish this task. The 'A' pieces are designed to cover the 'throat' of the elbow while the 'B' pieces cover the 'back' of the elbow (see figure at left). When ordering Sproule High Temperature Premolded Quad Fitting Covers please specify the number of 90° elbows and 45° elbows desired. SMC will then convert your quantities into the correct number of 'A' and 'B' pieces needed.

Please Note: All SMC paperwork will specify the number of 'A' and 'B' pieces ordered, not total number of fitting covers. It is recommended to edit your purchase order at the time of ordering to reflect the number of 'A' and 'B' pieces. This should help prevent any confusion upon receiving the order. All cartons which contain Large Bore Fitting Covers will have both the above figure and chart printed on the side of the box. This simple diagram and chart have proven a useful guide for installers in the field unfamiliar with Quad Fitting Covers. If you would like any additional information regarding Large Bore Fitting Covers, please contact the factory at 1-800-628-6998.

All of the sizes listed above may not necessarily be available. Please call 1-800-628-6998, or visit www.smcindustries.com for a list of sizes currently available.



90° Long Radius Butt Weld Elbows Packaging Data

		Single Layer Insulation Thickness							
		1"	1½"	2"	2½"	3"	3½"	4"	5"
NPS	[DN]								
½	[15]	48 - A - 14	20 - A - 15	18 - B - 26	14 - B - 35	12 - C - 46	6 - C - 31	6 - C - 42	3 - C - 31
¾	[20]	48 - A - 13	20 - A - 15	18 - B - 25	14 - B - 35	10 - C - 39	6 - C - 31	6 - C - 41	3 - C - 31
1	[25]	30 - A - 14	15 - A - 15	16 - B - 28	14 - B - 35	12 - C - 45	6 - C - 31	6 - C - 41	3 - C - 31
1¼	[32]	25 - A - 12	12 - A - 14	16 - B - 27	14 - B - 29	12 - C - 44	6 - C - 31	8 - C - 53	3 - C - 31
1½	[40]	25 - A - 13	12 - A - 13	14 - B - 29	10 - C - 37	6 - C - 30	6 - C - 41	3 - C - 29	3 - C - 37
2	[50]	20 - A - 13	12 - A - 15	14 - B - 27	15 - C - 41	10 - C - 43	6 - C - 37	3 - C - 27	3 - C - 37
2½	[65]	12 - A - 12	14 - B - 25	15 - C - 40	8 - C - 36	8 - C - 43	3 - C - 24	3 - C - 32	3 - C - 43
3	[80]	16 - B - 17	14 - B - 24	15 - C - 33	8 - C - 34	8 - C - 42	3 - C - 24	3 - C - 31	3 - C - 42
3½	[90]	15 - C - 26	10 - C - 26	8 - C - 29	8 - C - 40	4 - C - 28	3 - C - 29	3 - C - 37	1.5 - C - 24
4	[100]	15 - C - 25	10 - C - 27	8 - C - 26	8 - C - 39	4 - C - 27	3 - C - 28	3 - C - 36	1.5 - C - 28
4½*	[115]	10 - C - 24	8 - C - 28	8 - C - 36	4 - C - 26	3 - C - 27	3 - C - 35	1.5 - C - 25	1 - C - 23
5	[125]	7 - C - 18	6 - C - 24	6 - C - 32	3 - C - 23	3 - C - 28	3 - C - 39	2 - C - 30	1.5 - C - 30
6	[150]	4 - C - 17	4 - C - 22	3 - C - 23	3 - C - 29	3 - C - 36	2 - C - 31	1.5 - C - 29	1.5 - C - 33
7*	[175]	4 - C - 20	3 - C - 20	3 - C - 26	3 - C - 32	2 - C - 29	1.5 - C - 27	1.5 - C - 31	1.5 - C - 38
8	[200]		2 - C - 19	2 - C - 25	2 - C - 33	2 - C - 40	2 - D - 47	2 - D - 55	1.5 - D - 49
9*	[225]		2 - C - 21	2 - C - 29	2 - C - 36	2 - D - 43	2 - D - 51	1.5 - D - 45	1.5 - D - 52
10	[250]		2 - D - 28	2 - D - 36	2 - D - 46	2 - D - 55	1 - D - 35	1 - D - 41	1 - D - 46
11*	[275]		2 - D - 30	2 - D - 39	2 - D - 49	0.75 - C - 25	1 - D - 37	1 - D - 43	1 - D - 49
12	[300]		0.5 - C - 12	0.5 - C - 15	1 - D - 33	1 - D - 39	0.75 - D - 36	0.75 - D - 41	0.75 - D - 47
14	[350]		1 - D - 23	1 - D - 30	1 - D - 38	1 - D - 46	1 - E - 55	1 - E - 64	1 - E - 73
15*	[375]		1 - D - 24	1 - D - 32	1 - D - 40	1 - E - 49	1 - E - 58	0.75 - E - 51	1 - E - 72
16	[400]		1 - E - 29	1 - E - 38	1 - E - 47	1 - E - 58	0.75 - E - 52	0.5 - E - 42	0.5 - E - 48
17*	[425]		1 - E - 30	1 - E - 39	1 - E - 50	0.5 - E - 32	0.5 - E - 38	0.5 - E - 44	0.5 - E - 50
18	[450]		0.5 - E - 19	0.5 - E - 25	0.5 - E - 31	0.5 - E - 38	0.5 - E - 44	0.5 - E - 51	0.33 - D - 40
19*	[475]			0.5 - E - 26	0.5 - E - 33	0.5 - E - 39	0.5 - E - 46	0.333 - D - 37	0.333 - Q - 42
20	[500]			0.333 - D - 21	0.333 - D - 26	0.333 - D - 31	0.333 - D - 36	0.333 - D - 42	0.33 - E - 47
21*	[525]			0.333 - D - 22	0.333 - D - 27	0.333 - D - 32	0.333 - D - 38	0.33 - E - 43	0.333 - E - 49
22	[550]			0.333 - D - 25					
23*	[575]								
24	[600]			0.25 - Q - 22	0.25 - Q - 27	0.25 - Q - 33	0.25 - Q - 38	0.25 - Q - 44	0.125 - Q - 27
25*	[625]			0.25 - Q - 21	0.25 - Q - 30	0.25 - Q - 33	0.25 - Q - 35	0.125 - Q - 24	0.125 - Q - 25

KEY - Carton Quantity - Carton Type - Carton Weight (lbs)

Outperforms Mitered Fitting Covers

- No glue joints to open up
- Butts up to form perfect 90 degree joints
- Not dusty or powdery

Non Wicking—Will not Absorb Water

- Most insulation systems fail at the fittings
- Use water resistant insulation at these trouble spots



Please refer to the General Packaging Data on page 11 for detailed box and shipping information.



45° Long Radius Butt Weld Elbows Packaging Data

		Single Layer Insulation Thickness								
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"	4½"	5"
½	[15]	48 - A - 12	25 - A - 15	12 - A - 15	20 - C - 37	10 - C - 31	8 - C - 32	8 - C - 38	3 - C - 31	
¾	[20]	48 - A - 12	25 - A - 14	12 - A - 15	20 - C - 37	10 - C - 31	8 - C - 32	8 - C - 38	3 - C - 31	
1	[25]	30 - A - 11	20 - A - 14	16 - B - 22	20 - C - 36	12 - C - 35	8 - C - 31	8 - C - 38	3 - C - 31	
1¼	[32]	30 - A - 12	12 - A - 14	16 - B - 21	20 - C - 36	10 - C - 30	8 - C - 31	8 - C - 37	3 - C - 31	
1½	[40]	25 - A - 13	12 - A - 14	20 - C - 35	15 - C - 42	8 - C - 31	8 - C - 37	6 - C - 35		
2	[50]	16 - A - 11	16 - B - 19	20 - C - 33	15 - C - 40	8 - C - 30	8 - C - 36	6 - C - 35		
2½	[65]	12 - A - 12	20 - C - 31	12 - C - 32	8 - C - 29	8 - C - 35	6 - C - 34			
3	[80]	16 - B - 15	20 - C - 28	15 - C - 36	8 - C - 27	8 - C - 34	6 - C - 33			
3½	[90]	20 - C - 29	15 - C - 33	8 - C - 26	8 - C - 32	6 - C - 32				
4	[100]	30 - C - 25	20 - C - 27	16 - C - 30	16 - C - 39	8 - C - 27	6 - C - 28	6 - C - 36	4 - C - 35	3 - C - 33
4½*	[115]	20 - C - 24	16 - C - 28	16 - C - 36	8 - C - 26	6 - C - 27	6 - C - 35	3 - C - 25	2 - C - 23	
5	[125]	14 - C - 8	12 - C - 24	12 - C - 32	6 - C - 23	6 - C - 28	6 - C - 39	4 - C - 30	3 - C - 30	3 - C - 35
6	[150]	8 - C - 17	8 - C - 22	6 - C - 23	6 - C - 29	6 - C - 36	4 - C - 31	3 - C - 29	3 - C - 33	3 - C - 37
7*	[175]	8 - C - 20	6 - C - 20	6 - C - 26	6 - C - 32	4 - C - 29	3 - C - 27	3 - C - 31	3 - C - 38	2 - C - 32
8	[200]		4 - C - 19	4 - C - 25	4 - C - 33	4 - C - 40	4 - D - 47	4 - D - 55	3 - D - 49	3 - D - 55
9*	[225]		4 - C - 21	4 - C - 29	4 - C - 36	4 - D - 43	4 - D - 51	3 - D - 45	3 - D - 52	3 - D - 32
10	[250]		4 - D - 28	4 - D - 36	4 - D - 46	4 - D - 55	2 - D - 35	2 - D - 41	2 - D - 46	2 - D - 53
11*	[275]		4 - D - 30	4 - D - 39	4 - D - 49	1.5 - C - 25	2 - D - 37	2 - D - 43	2 - D - 49	2 - D - 56
12	[300]		1 - C - 12	1 - C - 15	2 - D - 33	2 - D - 39	1.5 - D - 36	1.5 - D - 41	1.5 - D - 47	2 - E - 69
14	[350]		2 - D - 23	2 - D - 30	2 - D - 38	2 - D - 46	2 - E - 55	2 - E - 64	2 - E - 73	1.5 - E - 63
15*	[375]		2 - D - 24	2 - D - 32	2 - D - 40	2 - E - 49	2 - E - 58	1.5 - E - 51	2 - E - 140	1.5 - E - 66
16	[400]		2 - E - 29	2 - E - 38	2 - E - 47	2 - E - 58	1 - E - 36	1 - E - 42	1 - E - 48	1 - E - 47
17*	[425]		2 - E - 30	2 - E - 39	2 - E - 50	1 - E - 32	1 - E - 38	1 - E - 48	1 - E - 50	1 - E - 56
18	[450]		1 - E - 19	1 - E - 25	1 - E - 31	1 - E - 38	1 - E - 44	1 - E - 51	1 - E - 58	1 - E - 65
19*	[475]			1 - E - 26	1.5 - E - 47	1 - E - 39	1 - E - 46	1 - E - 53	1 - E - 60	1 - E - 68
20	[500]			1 - E - 30	1 - E - 37	1 - E - 45	1 - E - 53	1 - E - 61	1 - E - 69	1 - E - 78
21*	[525]			1 - E - 31	1 - E - 38	1 - E - 46	0.666 - D - 38	1 - E - 63	1 - E - 72	0.666 - E - 55
22	[550]			1 - E - 35						
23*	[575]									
24	[600]			0.5 - Q - 22	0.5 - Q - 27	0.5 - Q - 33	0.5 - Q - 38	0.5 - Q - 44	0.25 - Q - 27	0.25 - Q - 30
25*	[625]			0.5 - Q - 21	0.5 - Q - 30	0.5 - Q - 33	0.5 - Q - 35	0.5 - Q - 24	0.25 - Q - 25	

KEY - Carton Quantity - Carton Type - Carton Weight (lbs)



Best Choice with Calcium Silicate

- Abuse resistance of calcium silicate without the absorption problems

Saves Time and Fabrication Costs

- Up to 65% cost savings of mitered fitting covers

Asbestos Free Identity System

- Color gold throughout
- Non-toxic

Please refer to the *General Packaging Data* on page 11 for detailed box and shipping information.



90° Screwed / Socket Weld Elbows Packaging Data

		Single Layer Insulation Thickness						
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"
½	[15]	48 - A - 13	20 - A - 15	18 - B - 25	14 - B - 35	12 - C - 45	6 - C - 31	6 - C - 42
¾	[20]	48 - A - 13	20 - A - 15	18 - B - 25	14 - B - 35	12 - C - 45	6 - C - 31	6 - C - 41
1	[25]	30 - A - 13	15 - A - 15	16 - B - 29	14 - B - 34	10 - C - 38	6 - C - 31	6 - C - 41
1¼	[32]	25 - A - 11	18 - B - 19	16 - B - 28	14 - B - 29	12 - C - 44	6 - C - 31	6 - C - 41
1½	[40]	20 - A - 13	18 - B - 19	14 - B - 30	12 - C - 43	6 - C - 30	6 - C - 40	3 - C - 29
2	[50]	15 - A - 12	16 - B - 21	14 - B - 29	12 - C - 33	6 - C - 29	6 - C - 39	3 - C - 28
2½	[65]	18 - B - 17	14 - B - 26	12 - C - 35	6 - C - 25	6 - C - 38	3 - C - 28	3 - C - 28
3	[80]	16 - B - 18	14 - B - 25	10 - C - 27	6 - C - 23	6 - C - 36	4 - C - 34	3 - C - 29
3½	[90]		12 - C - 33	6 - C - 29	6 - C - 29	3 - C - 26		
4	[100]		12 - C - 32	6 - C - 26	6 - C - 26	3 - C - 24		

KEY - Carton Quantity - Carton Type - Carton Weight (lbs)

45° Screwed / Socket Weld Elbows Packaging Data

		Single Layer Insulation Thickness						
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"
½	[15]	48 - A - 12	25 - A - 15	12 - A - 15	20 - C - 37	15 - C - 44	8 - C - 32	8 - C - 38
¾	[20]	48 - A - 12	25 - A - 14	12 - A - 15	20 - C - 37	15 - C - 44	8 - C - 32	8 - C - 38
1	[25]	30 - A - 12	20 - A - 14	16 - B - 22	20 - C - 36	15 - C - 43	8 - C - 31	8 - C - 38
1¼	[32]	30 - A - 11	12 - A - 14	16 - B - 22	20 - C - 36	15 - C - 43	8 - C - 33	8 - C - 37
1½	[40]	25 - A - 13	12 - A - 14	20 - C - 35	12 - C - 35	8 - C - 31	8 - C - 37	6 - C - 35
2	[50]	15 - A - 11	16 - B - 20	20 - C - 34	15 - C - 41	10 - C - 37	8 - C - 29	6 - C - 35
2½	[65]	12 - A - 13	20 - C - 33	15 - C - 40	8 - C - 30	8 - C - 36	6 - C - 35	
3	[80]	16 - B - 18	20 - C - 31	10 - C - 27	8 - C - 29	8 - C - 35	6 - C - 30	
3½	[90]		10 - C - 26	8 - C - 28	8 - C - 34	6 - C - 33		
4	[100]		12 - C - 29	8 - C - 27	8 - C - 27	6 - C - 32		

KEY - Carton Quantity - Carton Type - Carton Weight (lbs)

Screwed / Socket Weld Equal Tees Packaging Data

		Single Layer Insulation Thickness						
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"
½	[15]	28 - A - 20	10 - A - 15	16 - B - 31	10 - C - 44	10 - C - 56	4 - C - 38	4 - C - 47
¾	[20]	28 - A - 19	10 - A - 15	16 - B - 31	10 - C - 44	10 - C - 55	4 - C - 38	4 - C - 46
1	[25]	24 - A - 23	20 - B - 30	12 - B - 28	10 - C - 43	10 - C - 54	4 - C - 38	4 - C - 46
1¼	[32]	24 - A - 21	16 - B - 28	16 - B - 34	10 - C - 42	10 - C - 53	4 - C - 37	4 - C - 45
1½	[40]	10 - A - 13	18 - B - 30	10 - C - 41	10 - C - 52	4 - C - 37	4 - C - 45	3 - C - 40
2	[50]	18 - B - 22	16 - B - 31	10 - C - 39	10 - C - 50	4 - C - 35	4 - C - 44	3 - C - 40
2½	[65]	18 - B - 24	10 - C - 36	10 - C - 48	4 - C - 34	4 - C - 41	3 - C - 39	3 - D - 56
3	[80]	16 - B - 23	10 - C - 32	5 - C - 24	4 - C - 32	4 - C - 39	3 - C - 37	3 - D - 54
3½	[90]	10 - C - 29	10 - C - 40	4 - C - 30	4 - C - 37	3 - C - 36	3 - D - 52	
4	[100]	10 - C - 24	10 - C - 36	4 - C - 28	4 - C - 35	3 - C - 34	3 - D - 50	

KEY - Carton Quantity - Carton Type - Carton Weight (lbs)

Please refer to the General Packaging Data on page 11 for detailed box and shipping information.



90° Long Radius Butt Weld Elbows Aluminum Fitting Covers Compatibility Chart

NPS [DN]	Single Layer Insulation Thickness								
	1"	1½"	2"	2½"	3"	3½"	4"	4½"	5"
½ [15]	2	5	8	12	23	59	60	61	
¾ [20]	2	5	8	12	23	59	60	61	
1 [25]	3	6	11	12	23	59	60	61	
1¼ [32]	3	9	11	18	23	59	60	61	
1½ [40]	4	9	18	23	59	60	61		
2 [50]	7	10	18	20	15	60	61		
2½ [65]	13	16	20	24	25	26	31		
3 [80]	14	19	22	24	25	26	31		
3½ [90]	17	21	27	30	33	31	34		
4 [100]	17	21	27	30	33	31	34		
4½* [115]	21	27	30	33	31	34			
5 [125]	28	29	36	38	39	34	45		
6 [150]	32	35	37	39	44	45	57		
7* [175]	35	37	39	44	45	57			
8 [200]	41	42	43	47	49	52	53		
9* [225]	42	43	47	49	52	53			
10 [250]	46	50	51	55	54				
11* [275]	50	51	55	54					
12 [300]	48	58	56						
14 [350]	Please contact any major aluminum elbow manufacturer for large bore elbows or gores								
15* [375]									
16 [400]									
17* [425]									
18 [450]									
19* [475]									
20 [500]									
21* [525]									
22 [550]									
23* [575]									
24 [600]									
25* [625]									

BOLD sizes vary from published charts of major aluminum elbow manufacturers.

Largest Selection Available in Stock

- Long / Short Radius
- Socket Weld / Screwed (3000# & 6000#)
- Butt Weld Tees
- Stainless Steel Tubing
- Now over 1700 Sizes Available!

Accepted by General Union Policies





45° Long Radius Butt Weld Elbows Aluminum Fitting Covers Compatibility Chart

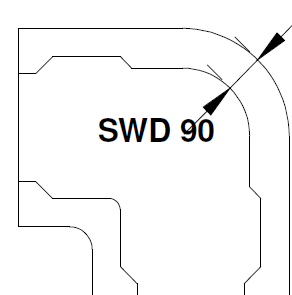
NPS [DN]	Single Layer Insulation Thickness								
	1"	1½"	2"	2½"	3"	3½"	4"	4½"	5"
½ [15]	1	3	5	7	8	9	10	11	
¾ [20]	1	3	5	7	8	9	10	11	
1 [25]	2	4	6	7	8	9	10	11	
1¼ [32]	2	5	6	7	8	9	10	11	
1½ [40]	3	5	7	8	9	10	11		
2 [50]	4	6	7	8	9	10	11		
2½ [65]	5	7	8	9	10	11	12		
3 [80]	6	7	8	9	10	11	12		
3½ [90]	7	8	9	10	11	12	13		
4 [100]	7	8	9	10	11	12	13		
4½* [115]	8	9	10	11	12	13			
5 [125]	8	9	10	11	12	13	14		
6 [150]	9	10	11	12	13	14			
7* [175]	10	11	12	13	14				
8 [200]	11	12	13	14	15	16			
9* [225]	12	13	14	15	16				
10 [250]	13	14	15	16					
11* [275]	14	15	16						
12 [300]	15	16							
14 [350]									
15* [375]									
16 [400]									
17* [425]									
18 [450]									
19* [475]									
20 [500]									
21* [525]									
22 [550]									
23* [575]									
24 [600]									
25* [625]									

BOLD sizes vary from published charts of major aluminum elbow manufacturers.

90° Screwed / Socket Weld Elbows Details

Some Preformed Aluminum Jackets in bold print vary from the recommended sizes published by the major aluminum elbow manufacturers. SMC must maintain a minimum thickness in the heel for structural integrity of the Molded Perlite Fitting Cover. The diagram to the right highlights the area in which the wall thickness can be no less than 1/8" thick. This stringent specification requires that we change our 'outside mold' to guarantee the 1/8" wall thickness while still maintaining the proper Outside Diameter (OD) set forth in ASTM C 585. Therefore, the new 'outside mold' changes the recommended aluminum elbow for given Molded Perlite Fitting Covers.

1/8" Minimum





90° Screwed / Socket Weld Elbows Aluminum Fitting Covers Compatibility Chart

		Single Layer Insulation Thickness						
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"
½	[15]	2	5	8	12	23	59	60
¾	[20]	2	5	8	12	23	59	60
1	[25]	3	6	11	12	23	59	60
1¼	[32]	3	8	11	18	23	59	60
1½	[40]	5	8	12	23	59	60	
2	[50]	6	11	12	23	59	60	
2½	[65]	8	12	23	59	60	61	
3	[80]	11	12	23	59	60	61	
3½	[90]	12	23	59	60	61		
4	[100]	12	23	59	60	61		

BOLD sizes vary from published charts of major aluminum elbow manufacturers.

90° Short Radius Butt Weld Elbows Aluminum Fitting Covers Compatibility Chart

		Single Layer Insulation Thickness						
NPS	[DN]	1"	1½"	2"	2½"	3"	3½"	4"
1	[25]	3	6	11	12	23	59	60
1¼	[32]	3	8	11	12	23	59	60
1½	[40]	5	8	12	23	59	60	61
2	[50]	6	11	18	23	59	60	61
2½	[65]	9	18	23	59	60	61	
3	[80]	10	18	20	24	60	61	
3½	[90]	16	20	24	60	61		
4	[100]	16	20	24	25	26	31	
5	[125]	21	24	30	33	31		
6	[150]	27	30	33	31	34		
8	[200]	37	39	44	45	57		
10	[250]	44	45	57				
12	[300]	49	52	53				
14	[350]	55	54					
16	[400]	Please contact any major aluminum elbow manufacturer for large bore elbows or gores						
18	[450]							
20	[500]							
22	[550]							
24	[600]							

BOLD sizes vary from published charts of major aluminum elbow manufacturers.



General Packaging & Shipping Data

Carton Dimensions

Carton	Length	Width	Height	Ft ³	per Pallet
A	17" (43.2 cm)	17" (43.2 cm)	12 ½" (31.8 cm)	1.97	35
B	17" (43.2 cm)	17" (43.2 cm)	25" (63.6 cm)	3.86	18
C	20" (50.8 cm)	26 ½" (67.3 cm)	21" (53.3 cm)	6.50	12
D	24" (61.0 cm)	30 ½" (77.5 cm)	24 ½" (62.2 cm)	10.80	6
E	26 ½" (67.3 cm)	34 ½" (87.6 cm)	30" (76.2 cm)	15.70	6
Q	26 ½" (67.3 cm)	34 ½" (87.6 cm)	21" (53.3 cm)	10.75	8
10 ½ X 10 ½	10 ½" (26.7 cm)	10 ½" (26.7 cm)	48" (121.9 cm)	3.06	12
7 X 7	7" (17.8 cm)	7" (17.8 cm)	48" (121.9 cm)	1.36	25

Shipping Methods

Will Call / Hot Shot Shipments: All Will Call and Hot Shot orders will be available for pickup during normal shipping hours unless arranged in advance. Will Call and Hot Shot shipments will be loose loaded unless specifically requested ahead of time. A \$10.00 handling fee will be charged per pallet.

United Parcel Service Shipments: Only carton types A, B, C, D, 10 ½ X 10 ½, and 7 X 7 may ship via UPS. B, C, D, and 10 ½ X 10 ½ cartons are subject to dimensional weight standards, and ship at a minimum of 30 lbs. (B and C cartons) or 70 lbs. (D Cartons) for Ground Service. All A, B, C, D, 7 X 7, and 10 ½ X 10 ½ cartons are subject to dimensional weight standards when shipping 3 Day Select®, 2nd Day Air®, and Next Day Air®. Please contact the factory for a freight quote for these services. In addition to the actual freight costs, a \$5.00 handling fee per carton will be charged for all UPS shipments.

Less Than Truckload (LTL) Shipments: All SMC Perlite Fitting Covers will ship at Class 110. All paperwork and pallets will be marked with 'Top Load Only' and 'Do Not Remove From Pallet.' All cartons will be stretch wrapped and securely banded to the pallet. In order to calculate an accurate shipping weight, SMC will use a constant weight of 45 lbs. per pallet plus the weight of the cartons themselves. In addition to the actual freight costs, a \$10.00 handling fee will be charged per pallet.

Full Truckload Shipments: Unless otherwise requested, SMC Industries, Inc. will pallet load all Full Truckload Shipments. Additional fees may be assessed for custom loading requests.

SMC Industries, Inc. estimates one 'Full, Palletized Truckload' as 2,000 cubic feet for a standard 53' dry van trailer. Please allow for additional cubic footage due to packaging variations of partial cartons. All orders containing 50 or more cartons will have a cross off sheet included with the packing slip to ease the unloading process. In the cases of multiple order shipments, SMC Industries, Inc. will make every attempt to keep orders grouped together within the truck, but to maximize the utilization of the trailer, SMC Industries, Inc. cannot guarantee that orders will be kept together.

WR-1200 Specification Sheet

All SMC's Industries Inc. Molded Perlite Fitting Covers are made with the Sproule WR-1200 formulation.

Sproule WR-1200 is a molded high temperature insulation composed of fine grade Perlite, sodium silicate binders, and a new uniformly dispersed fiber reinforcing system that makes WR-1200 the strongest Perlite insulation commercially produced.

Recommended Uses Sproule WR-1200 is recommended for use in industrial processing and power generating facilities on process equipment and piping, operating continuously or cyclically at temperatures to 1200°F, (649 C). Sproule WR-1200 will not become saturated when accidentally exposed to water. This outstanding feature drastically reduces potential for corrosion under insulation while assuring the customer of optimum thermal performance.

Corrosion Protection Sproule WR-1200 offers a second line of defense against corrosion. Should moisture and chlorides leak through seams and joints and become trapped between insulation and metal—WR-1200 has a reserve of soluble silicates which form a protective film on the metal surface to seal out the chlorides and moisture. This feature makes Sproule WR-1200 an ideal choice for all austenitic stainless steels, which are highly susceptible to chloride stress cracking.

Asbestos Free Sproule WR-1200 is manufactured with as easily recognizable throughout gold Asbestos-Free Identity System.

Physical Properties

Maximum Service Temp.....1200°F, 649°C

Density (avg.).....12lb/ft³, 208 kg/m³

Compressive Strength

at 5% deformation.....90-110 psi, 6.3-7.7 kg/cm²

Flexural Strength.....60-75 psi, 4.2-5.3 kg/cm²

Linear Shrinkage.....less than 2%

Acid Resistance (after one week exposure)

10% sulfuric acid.....no effect

10% hydrochloric acid.....no effect

Fire Hazard Classification (ASTM E-84)

Flame Spread.....0

Smoke Developed.....0

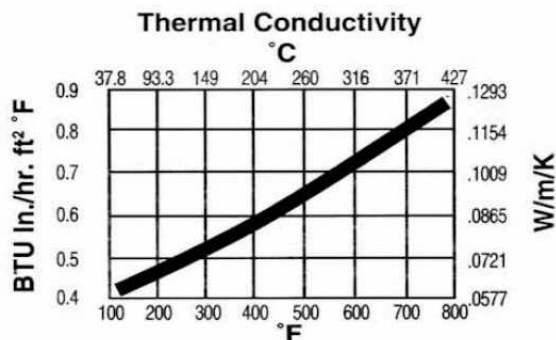
Fuel Contributed.....0

Water Absorption (ASTM C-209)*

By volume (avg.).....0.4%

By weight (avg.).....6.02%

****Note:** WR-1200 is not a vapor barrier



Corrosion Protection Leachable Silicates (ASTM C-871) approx. 50,000 PPM Complies with following specifications dealing with chloride stress cracking.

Dana Test at room temperature and after heat soaking at 500°F, (260 C)

NRC 1.36 MIL-I-24244

WR-1200 also complies with ASTM C-610-11

Available Forms**

Type	Pipe Sizes	Insulation Thickness (1/2" Increments)
Screwed 90	1/2" - 4"	1-4
Screwed 45	1/2" - 4"	1-4
Screwed Tee	1/2" - 4"	1-4
LR Weld 90		
And Weld 45	1/2" - 42"	1-8
Welded Tee's	1/2" - 8"	1-8

Also available upon special request:

- Heavy walled fitting covers
- Short Radius 90's & 45's
- Ball Valve Covers
- Plug Valve Covers
- Flange Covers

****Note:** Some sizes may not be immediately available

The information herein is accurate and reliable to the best of SMC Industries, Inc.'s knowledge. But, because SMC Industries, Inc. has no control over our products once they leave our plant, no representation or warranty, expressed or implied, either as to MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE is made as to performance or results of an insulation containing our product which extend the description on the face hereof. If the products otherwise fail to conform to the representations made herein, through no fault of the purchaser, purchaser's exclusive remedy and SMC Industries, Inc.'s sole liability, shall at SMC Industries, Inc.'s option, be the repair or replacement of the nonconforming products or parts thereof, F.O.B. our nearest shipping point. The warranty expires one year from date of purchase. IN NO EVENT SHALL SMC INDUSTRIES, INC. BE RESPONSIBLE OR LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES WHICH MIGHT RESULT FROM PRODUCT FAILURE.

All Products Made in the U.S.A. Sproule WR-1200 is a formula of Calsilite Manufacturing Corporation, a totally separate entity from SMC Industries, Inc.

800-628-6998



www.smcindustries.com



SMC Industries, Inc.

Sproule WR-1200 High Temperature Pre-Molded Fitting Covers

Safety Data Sheet (SDS)

Complies with 29 C.F.R. 1910.1200, Updated 5/12/2015

Section 1

Identification

Product Name: Sproule WR-1200 High Temperature Pre-Molded Fitting Covers

Physical Appearance: Odorless, gold, formed composites, shaped to conform to fittings on high temperature industrial piping systems.

Manufacturer: SMC Industries, Inc.

3239 Phoenixville Pike 2260 Appelt Drive
Malvern, PA 19355 Houston, TX 77015
Phone: (610) 647-5687 Phone: (281) 860-9950

Recommended Use: For use as thermal insulation

Restrictions on Use: None

Section 2

Hazard(s) Identification

This product is not considered a carcinogen but only a nuisance dust when fabricating or cutting.

HCS Pictogram: Exclamation mark for respiratory tract irritant.



Section 3

Composition/Information on Ingredients

Chemical Identity: A mixture of expanded perlite, a processed silicate mineral consisting predominantly of amorphous silica, and sodium silicate, CAS Reg. No. 1344-09-8.

Component: Amorphous silica (perlite)

Percent: Approximately 75%

OSHA PEL: 20 mppcf respirable dust

ACGIH TLV®: 10 mg/cubic meter total dust

Component: Sodium silicate

Percent: Approximately 25%

OSHA PEL: Not established

ACGIH TLV®: Not established

Section 4

First Aid Measures

In case of inhalation, remove to fresh air. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Section 5

Fire Fighting Measures

Specific Fire Fighting Procedures: Not applicable, Noncombustible

Unusual Fire or Explosion Hazards: None known

Extinguishing media: Compatible with all media

Section 6

Accidental Release Measures

Not Applicable

Section 7

Handling and Storage

Waste Disposal: Landfill according to local, state, and federal regulations.

Regulatory Status: Not a RCRA hazardous waste. Not a SARA Title III listed hazardous chemical.

Section 8

Exposure Controls/Personal Protection

Engineering Control: Use with adequate ventilation.

Respiratory Protection: Use NIOSH-approved dust mask or respirator where dust occurs.

Eye Protection: Use safety goggles when handling.

Gloves: Use cotton work gloves when handling.

Personal Hygiene: Avoid breathing dust. Wash thoroughly after handling.

Section 9

Physical and Chemical Properties

Solubility in Water: Slight.

Melting Point: Greater than 1200F.

Boiling Point: Data not available

Flash Point: Noncombustible

Vapor Pressure: Data not available

Vapor Density: Data not available

Evaporation Rate: Data not available

Specific Gravity: Less than 1

Flammability Limits: Not applicable

LEL: Not applicable

UEL: Not applicable

Section 10

Stability and Reactivity

Stability: Stable

Conditions to avoid: Not applicable

Incompatibility: Strong inorganic alkalis, hydrofluoric acid

Hazardous Decomposition Products: None

Hazardous Polymerization: Will not occur

Section 11

Toxicological Information

Source of hazard: The sole hazard of this material arises from dust which may be generated on cutting or abrading.

Inhalation: Dust causes irritation to lungs and respiratory tract.

Eye Contact: Dust may cause eye irritation.

Skin Contact: May cause skin irritation.

Ingestion: No hazards known or suspected.

Acute Exposure: Sneezing and dryness of mucous membranes (inhalation); Redness or tearing (eye exposure).

Chronic Exposure: No hazards known or suspected.

Not listed by OSHA, NTP, or IARC as a carcinogen.

Medical Conditions Aggravated by Exposure:

Asthma or lung diseases.

Section 16

Other Information

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