General Description

- BOM 6 gaskets even meet highest performance demands. They consist of a homogeneous mix with conductive particles in silicone. BOM 6 is available in sheet form, as moulded part or extruded profile.
- Depending on environment and required shielding performance Bomberg offers following particles mixed in silicone:
  - Carbon (CP): Mainly for anti-static protection with highest temperature range (225°C) and for low-cost solutions.
  - Nickel (NP): Can be used for salt spray conditions. Has a good resistance against oxidation and corrosion. Offers moderate shielding performance at low cost.
  - Nickel and Graphite (NPGR): Offers better volume resistivity and shielding effectiveness than NP.Good for salt spray conditions
  - Silver Plated Glass (SPG): Very reasonable silver plated version with good shielding performance.
  - Silver Plated Copper (SPC): High performance shielding. EMP resistant.
  - Silver Plated Nickel (SPN): High performance shielding. Improved temperature range and corrosion resistance compared to SPC.
  - Pure Silver (SP): Excellent shielding performance for high-end-solutions.
  - Silver Plated Aluminium (SPA): Good shielding performance and very good corrosion resistance.
- When exposed to aggressive fluids, such as hydraulic oil, kerosene, jet fuel, etc. we recommend to use our fluorosilicone version.
- Connector gaskets are listed on page xx to xx.
- Die-cut or moulded parts are made per customer specifications. Please contact Bomberg sales office for assistance and choice of material.
- BOM 6 gaskets can be used to combine application as environmental seal as well as shielding gasket.

Recommended Compression Force

Sheet material:
- 6 - 10 % of material thickness

Extruded profiles:
- 10 - 25 % of diameter / material thickness

- For BOM 6 material with conductive surface only, see UVS-series.

- Following pages show different standard profiles. However, our assortment is far from being restricted to those listed. Custom-made profiles are welcome.

Specifications

Material	Conductive particle	Elastomer	Ordering code	Durometer Shore	max. Volume resistivity* (Ohm - cm)	Shielding effectiveness (dB) min.			Temperature max. (°C)	Tensile strength (psi)	Elongation (%)	Gravity	Tear strength (lb/in)
						10 KHz	1 MHz	10 GHz					
BOM 6-CP	Carbon	Silicone	665X-	65	2	0	30	20	225	650	120	1,35	90
BOM 6-NP	Nickel	Silicone	668X-	40	.2	40	75	45	200	400	400	3,50	50
				60	.2	40	75	45	200	450	480	3,55	55
		Fluoro-Silicone	648X-	60	.4	40	75	45	165	310	210	3,70	65
BOM 6-NPGR	Nickel-graphite	Silicone	623X-	60	.05	80**	90**	90**	200	250	200	2,80	35
BOM 6-SPG	Silver plated glass	Silicone	626X-	40	.009	60	100	70	180	150	200	1,65	35
				60	.008	60	110	72	180	200	280	1,75	44
				80	.008	60	110	72	180	200	400	1,85	53
		Fluoro-Silicone	646X-	60	.010	60	110	72	180	180	200	1,85	30
BOM 6-SPA	Silver plated alu-minium	Silicone	624X-	40	.008	60	110	80	180	150	200	1,70	30
				60	.008	60	115	100	180	200	280	1,75	42
				80	.008	60	115	100	180	200	400	1,85	51
		Fluoro-Silicone	644X-	60	.009	60	115	90	180	180	200	1,85	30
BOM 6-SPC	Silver plated copper	Silicone	627X-	40	.009	70	110	110	135	100	200	3,45	22
				60	.004	70	120	120	135	200	400	3,55	55
				80	.004	70	120	120	135	200	375	3,65	73
		Fluoro-Silicone	647X-	60	.009	70	120	110	135	250	175	3,65	60
		Reinforced Silicone	657X-	80	.007	70	120	100	135	800	50	4,85	92
BOM 6-SPN	Silver plated nickel	Silicone	622X-	40	.008	70	120	120	200	100	200	3,45	22
				60	.003	72	130	130	200	200	500	3,55	55
				80	.003	72	130	130	200	250	375	3,65	73
		Fluoro-Silicone	642X-	60	.009	70	130	120	200	250	175	3,65	60
BOM 6-SP	Pure silver	Silicone	629X-	60	.004	70	120	120	200	200	250	3,50	30
				80	.004	70	120	120	200	200	400	3,60	45
		Fluoro-Silicone	649X-	60	.010	70	120	110	200	180	150	3,60	60
Test-Methode				ASTM D-2240 DIN 53505	MIL-G-83528	MIL-STD 285 **SAE-ARP-1705				ASTM D-412	ASTM D-412	ASTM D-297	

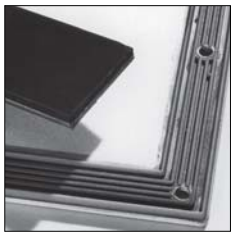
*The volume resistivity is measured on sheet material with special probe per MIL - G-83528


Sheet


Die-cut parts


Moulded parts


Extruded


Vulcanized

Material Table

Material	Specific Gravity (approx)	Composition Sheet	Die-cut part	Moulded part	Extruded	Vulcanized
Carbon in silicone	1,35	6653-	6654-	6655-	6656-	6657-
Nickel in silicone	3,05	6683-	6684-	6685-	6686-	6687-
Nickel in fluoro silicone	3,15	6483-	6484-	6485-	6486-	6487-
Silver plated glass in silicone	1,75	6263-	6264-	6265-	6266-	6267-
Silver plated glass in fluoro silicone	1,85	6463-	6464-	6465-	6466-	6467-
Silver plated copper in silicone	3,55	6273-	6274-	6275-	6276-	6277-
Silver plated copper in fluoro silicone	3,65	6473-	6474-	6475-	6476-	6477-
Silver plated copper in reinforced silicone	–	6573-	6574-	–	–	–
Silver plated nickel in silicone	3,66	6223-	6224-	6225-	6226-	6227-
Silver plated nickel in fluoro silicone	3,65	6423-	6424-	6425-	6426-	6427-
Pure silver in silicone	4,00	6293-	6294-	6295-	6296-	6297-
Pure silver in fluoro silicone	4,10	6493-	6494-	6495-	6496-	6497-
Silver plated aluminium in silicone	1,75	6243-	6244-	6245-	6246-	6247-
Silver plated aluminium in fluoro silicone	1,85	6443-	6444-	6445-	6446-	6447-
Nickel-graphite in silicone	2,80	6233-	6234-	6235-	6236-	6237-

Ordering Example

► Extruded solid O-strip, ø 3,18 mm in silver plated copper with durometer shore 50.
6276-1210-50
- 10 — Durometer (shore)
- 12 — Profile/dimension
- 6276 — Material

Ordering Information for Sheet Material

► The ordering code consists of a 10-digit number.
1) The first 4 digits decide the material, particles and composition according to the material table.
2) The digits 5 to 8 decide sheet size according to table 1.
3) The 9. and 10. digit decide the durometer as per specification.

Tolerances

Extruded parts

- up to 5 mm ± 0,13 mm
  > 5 to 9 mm ± 0,20 mm
  > 9mm ± 0,25 mm

Sheet material

- **Thickness:**
  up to 0,51 mm ± 0,10 mm
  up to 0,81 mm ± 0,13 mm
  up to 1,57 mm ± 0,18 mm
  up to 3,18 mm ± 0,25 mm
- **Outside dimensions:** ± 5,00 mm

Composition and Ordering Code

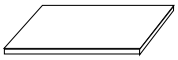
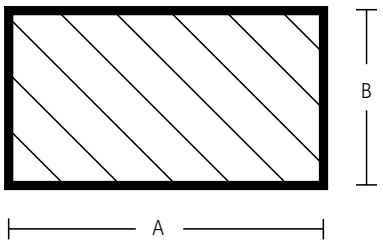


Table 1: Sheet material

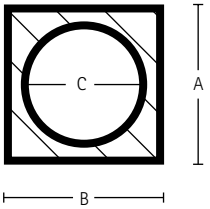
Thickness	Sheet size (mm)					
(mm)	180 x 180	250 x 250	300 x 300	400 x 400	250 x 500	460 x 500
0,51	-0206-	-0211-	-0212-	-	-	-
0,81	-0306-	-0311-	-0312-	-0314-	-0316-	-
1,13	-0406-	-0411-	-0412-	-0414-	-0416-	-0421-
1,57	-0606-	-0611-	-0612-	-0614-	-0616-	-0621-
2,36	-0906-	-0911-	-0912-	-0914-	-0916-	-0921-
3,18	-1206-	-1211-	-1212-	-1214-	-1216-	-1221-

Table 2: Extruded profiles



a) Solid rectangular profile

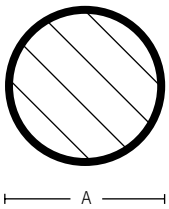
Dimensions		
A	B	Order code
1,60	1,07	-0681-
2,41	1,57	-0982-
3,05	1,91	-1283-
3,18	1,57	-1282-
3,96	1,57	-1582-
6,35	1,57	-2582-
12,70	1,91	-5084-
12,70	3,18	-5085-
12,70	4,78	-5086-
19,05	1,57	-7582-
22,35	1,57	-8882-
25,40	6,35	-A187-
29,97	1,57	-A282-



b) Hollow rectangular profile

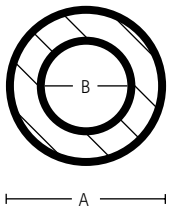
Dimensions			
A	B	C	Order code
7,75	8,38	3,18	-3061-
9,53	9,53	4,78	-3762-

c) Solid O-strip



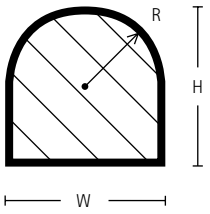
Dimensions	Recommended groove		Order code
A	depth	width	
1,02	0,89	1,09	-0410-
1,35	1,12	1,48	-0510-
1,57	1,32	1,70	-0610-
1,78	1,47	1,91	-0710-
2,03	1,65	2,16	-0810-
2,36	1,91	2,49	-0910-
2,62	2,08	2,74	-1010-
2,84	2,29	2,97	-1111-
3,02	2,44	3,15	-1112-
3,18	2,57	3,30	-1210-
3,30	2,64	3,43	-1313-
3,81	3,05	3,96	-1510-
4,06	3,28	4,22	-1610-
5,49	4,50	5,66	-2110-
6,35	5,18	6,53	-2510-

d) Hollow O-strip



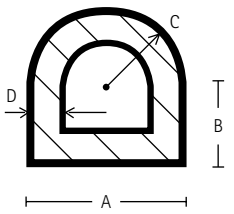
Dimensions		Order code
A	B	
1,10	0,30	-0525-
1,35	0,40	-0627-
1,78	0,64	-0727-
2,36	0,89	-0928-
2,62	1,01	-1021-
3,18	1,14	-1221-
3,96	1,27	-1522-
4,50	2,00	-1729-
6,35	3,18	-2523-
7,92	4,88	-3124-
9,53	6,35	-3725-
11,10	6,35	-4326-

e) Solid D-profile



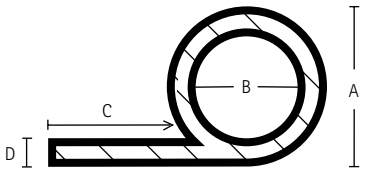
Dimensions			Recommended groove		Order code
H	W	R	depth	width	
1,63	1,40	0,79	1,42	1,65	-0531-
1,73	1,57	0,79	1,52	1,83	-0632-
1,98	2,39	1,19	1,73	2,64	-0933-
2,26	1,98	0,99	1,98	2,16	-0734-
2,54	1,57	0,79	2,24	1,83	-0635-
2,79	3,81	1,91	2,46	4,19	-1536-
3,45	3,15	1,55	3,02	3,43	-1237-
3,96	3,00	1,50	3,43	3,35	-1138-
4,45	4,52	2,26	3,86	4,83	-1739-

f) Hollow D-profile



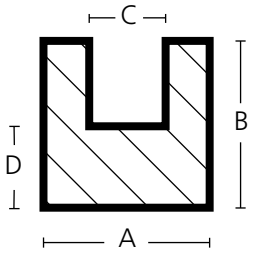
Dimensions				Order code
A	B	C	D	
3,96	1,14	1,98	1,14	-1540-
3,96	1,98	1,98	1,14	-1541-
4,75	2,36	2,36	1,27	-1842-
7,92	3,96	3,96	1,57	-3143-
7,92	5,08	2,84	1,57	-3144-
12,37	2,03	6,20	2,03	-4845-

g) Hollow P-profile



Dimensions				Order code
A	B	C	D	
5,08	2,03	16,51	1,57	-2051-
6,35	3,18	6,35	1,57	-2552-
6,35	3,18	9,53	1,57	-2553-
6,35	3,81	9,53	1,57	-2554-
7,92	4,75	14,30	1,57	-3155-
9,14	6,48	10,67	1,79	-3656-

h) U-profile



Dimensions				Order code
A	B	C	D	
2,54	2,54	0,86	0,84	-1071-
3,18	3,96	1,35	0,71	-1277-
3,20	2,79	0,66	1,27	-1272-
3,20	5,72	0,51	1,91	-1273-
3,96	3,96	1,57	1,19	-1574-
3,96	4,78	1,60	1,57	-1578-
4,00	4,83	1,50	1,22	-1579-
4,45	3,96	1,19	1,91	-1775-
4,78	4,78	1,83	1,78	-1880-
6,35	6,35	1,57	1,57	-2581-
8,31	5,97	1,57	2,92	-3276-

Ordering Information for Extruded Profiles

► The ordering code consists of a 10-digit number.
1) The first 4 digits decide the material, particles and composition according to the material table.
2) The digits 5 to 8 decide profile size according to table 2.
3) The 9. and 10. digit decide the durometer as per specification.