

## General Description

- ▶ BOM 8 gasket strips are elastomer cores usually with 2 layers of knitted wire mesh around if not indicated otherwise. These gaskets combine excellent shielding performance with high elasticity and provide an additional environmental sealing. As elastomer core we use mainly sponge neoprene or silicone. For hollow strips we use solid silicone as core to secure better elasticity whereas solid neoprene can only be used with a certain wall thickness due to stability reasons. Standard profiles are round, tubular or rectangular. Other profiles are possible on request. The wires used are mainly monel, a nickel-copper alloy with good ageing qualities and elasticity performance as well as high tensile strength. SCF offers the best H-field EMI shielding. Additional wire materials are stainless steel and aluminium. When selecting the wire, please consider the electrochemical compatibility to avoid galvanic corrosion. Optimum shielding is achieved with 2 layers of wire and 25 % compression with a closing force of 1,4 kp/cm<sup>2</sup>.
  - ▶ For very soft gasket strips, PU-foam is used. To maintain the elasticity of the foam, all PU-foam gasket strips only have 1 layer of knitted wire. In addition, the soft foam restricts possible rectangular profiles to those with larger dimensions.
  - ▶ BOM 8 is not only available in continuous lengths but also as custom made gasket.
  - ▶ For mounting purposes some of the gaskets can optionally be provided with a non-conductive adhesive tape. Consult factory for feasibility.
  - ▶ Suitable for enclosures and doors with low closing force as well as in sheet metal and moulded enclosures. Simple attachment by pressing into place or glueing the gasket into the groove (glue only spotwise). To facilitate assembly further, BOM 8 is also available with fin or as double round with fin.
- ▶ **Monel = Alloy of copper (30 %) and nickel (67 %).**  
 ▶ **SCF = Tinned copperclad steel. Steel (64 %), copper (34 % min), tin (2 %).**

## Material Code

Elastomer	Mesh			
	Monel	Alu	Stainless steel	SCF
Sponge neoprene	-8011-	-8012-	-8013-	-8014-
Solid neoprene	-8111-	-8112-	-8113-	-8114-
Sponge silicone	-8211-	-8212-	-8213-	-8214-
Solid silicone	-8311-	-8312-	-8313-	-8314-
PU-foam	-8411-	-8412-	-8413-	-8414-
Sponge EPDM	-8511-	-8512-	-8513-	-8514-

**Specifications**

**Mesh**

- ▶ Monel: Ø 0,114 mm, DIN 17743/17750
- ▶ Aluminium: Ø 0,127 mm, AMS-4182, Alloy 5056
- ▶ Stainless steel: Ø 0,114 mm, DIN 17440
- ▶ SCF: Ø 0,114 mm, ASTM-B-520

**Elastomer**

- ▶ Sponge neoprene: MIL-R-6130, Type 2 Grade A, similar to shore 15 - 25  
Cell-size: approx. 0,2 - 0,5 mm  
Density: 180 - 240 kg/m<sup>3</sup>  
Temperature: - 31° to + 100°C  
Colour: black
- ▶ Solid neoprene: MIL-R-6855, Class 2 Shore 60 - 70  
Temperature: - 54° to + 100°C  
Colour: black
- ▶ Sponge silicone: AMS-3195, similar to shore 15 - 25  
Temperature: - 75° to + 205°C
- ▶ Solid silicone: ZZ-R-765, Class 2 Shore 50 - 70  
Temperature: - 62° to + 260°C
- ▶ PU-foam: Polyether-base with 80 kg/m<sup>3</sup>  
Temperature: - 40° to + 80°C  
Colour: grey  
or: Polyetherurethane-base with 150 kg/m<sup>3</sup>  
Temperature: - 30° to + 70°C  
Colour: yellow
- ▶ Sponge EPDM: Density: 550 - 650 kg/m<sup>3</sup>  
Temperature: - 40° to + 100°C  
Colour: black

**Dimensions**

- ▶ Advised dimensions are for the elastomer core including wire mesh
- ▶ (e.g. BE-8011-2004 is a neoprene core Ø 6 mm with 2 layers of monel and a total cross section of Ø 6,35 mm).

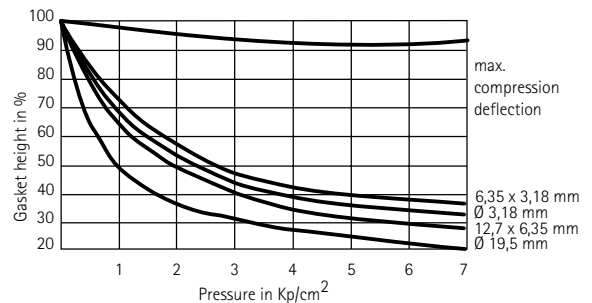
**Mechanical Tolerances**

- ▶ Knitted mesh all dimensions
  - 2 - 5 mm: + 0,4 - 0,0 mm
  - > 5 - 10 mm: + 0,5 - 0,3 mm
  - > 10 mm: + 1,5 - 0,5 mm

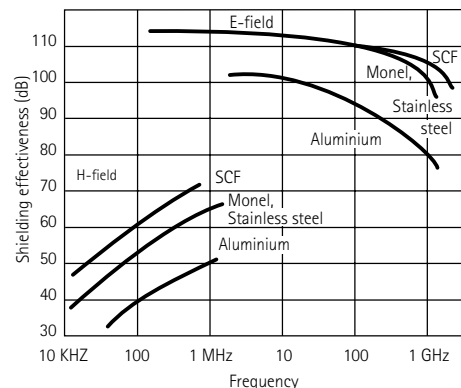
**Recommended Groove Size for O-strip Gaskets**

- ▶ with 10 % compression: depth: Ø x 0,9 width: Ø x 1,1
- ▶ with 20 % compression: depth: Ø x 0,8 width: Ø x 1,2

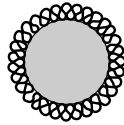
**Compression Force**



**Shielding Performance**



## Standard O-strip



Dimensions in mm

D	Order code	D	Order code
1,6	-2000*	8,5	-2015
2,3	-2032**	9,5	-2006
2,4	-2001	10,5	-2013
2,5	-2027**	11,1	-2007
3,2	-2002	12,7	-2008
4,8	-2003	14,3	-2009
5,5	-2014	15,9	-2010
6,4	-2004	19,1	-2011
7,5	-2030	25,4	-2012
7,9	-2005		

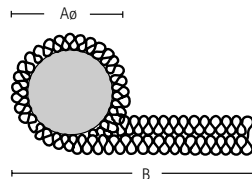
\* only solid silicone with 1 layer knitted wire mesh

\*\* only sponge neoprene with 1 layer knitted wire mesh

### ► Note:

As standard, all cross sections between 1,5 - 25 mm can be made in steps of approximately 0,5 mm.

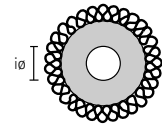
## O-strip with fin



Dimensions in mm

A	B	Order code	A	B	Order code
1,6	13,5	-2301	6,4	13,5	-2320
	15,9	-2302		15,9	-2321
	19,1	-2303		19,1	-2322
2,4	13,5	-2305	7,9	22,2	-2323
	19,1	-2306		25,4	-2324
3,2	13,5	-2309	9,5	15,9	-2325
	14,3	-2310		19,1	-2326
	15,9	-2311		22,2	-2327
	19,1	-2312		15,9	-2328
4,0	13,5	-2313	11,1	19,1	-2329
	19,1	-2314		22,2	-2330
4,8	13,5	-2316	12,7	25,4	-2331
	15,9	-2317		19,1	-2332
	19,1	-2318		22,2	-2333
	22,2	-2319	25,4	-2334	
				19,1	-2335
				22,2	-2336
			25,4	-2337	

## Tubular standard profile



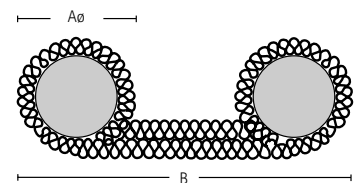
Dimensions in mm		Order code
AØ	Elastomer core iØ x wall thickness	
2,4	1,00 x 0,30	-2101*
3,2	1,50 x 0,40	-2102
4,8	2,00 x 1,00	-2103
6,4	4,00 x 1,00	-2104
7,9	4,00 x 1,75	-2105
9,5	4,50 x 2,25	-2106
10,0	6,50 x 1,50	-2115
12,7	7,00 x 2,50	-2108
14,5	11,00 x 1,50	-2109
15,8	8,00 x 3,50	-2110

\*only one layer knitted wire mesh

### ► Note:

Most elastomer cores are made from solid silicone. Tubular profiles are also available in solid neoprene as long as the wall thickness is big enough for a good stability. As standard, all outer-Ø with cross sections between 2,0-25 mm can be supplied in approx. 0,5 mm steps. Also the inner-Ø can be supplied in different dimensions depending on availability of manufacturers.

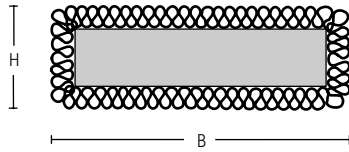
## Double O-strip with fin



Dimensions in mm

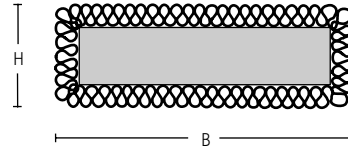
A	B	Order code	A	B	Order code
1,6	13,5	-2401	4,8	15,9	-2411
	15,9	-2402		19,1	-2412
	19,1	-2403		22,2	-2413
	22,2	-2404		25,4	-2414
2,4	13,5	-2405	6,4	19,1	-2415
2,5	25,4	-2420		22,2	-2416
3,2	13,5	-2406	9,5	25,4	-2417
	15,9	-2407		25,4	-2418
	19,1	-2408		31,8	-2419
	22,2	-2409			
	25,4	-2410			

**Rectangular standard profile**



Dimensions in mm		Order code
H	B	
2,4	3,2	-2202
	4,8	-2203
	6,4	-2204
3,2	3,2	-2205
	4,8	-2206
	6,4	-2207
	9,5	-2208
	12,7	-2209
4,8	4,8	-2210
	6,4	-2211
	9,5	-2212
6,4	6,4	-2213
	9,5	-2214
	12,7	-2215
8,5	12,5	-2295
9,5	14,5	-2292
10,5	15,5	-2219
	16,5	-2217
	26,5	-2263

**Rectangular standard profile (PU-foam only)**



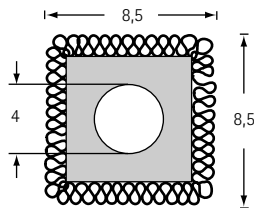
Dimensions in mm		Order code
H	B	
2,4	6,4	-2204
	6,4	-2207
	9,5	-2208
3,2	12,7	-2209
	4,8	-2210
4,8	6,4	-2211
	9,5	-2212
	6,4	-2213
6,4	9,5	-2214
	12,7	-2215

► **Note:**

For gaskets with PU-foam see table beside

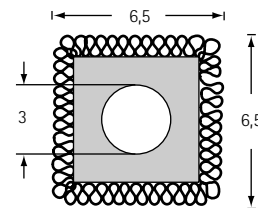
**Square profile with round hole**

► Order code: BOM-80xx-2500



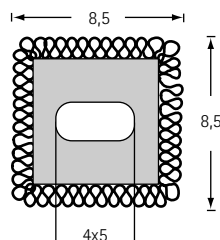
**Square profile with round hole**

► Order code: BOM-83xx-2501



**Square profile with oblong hole**

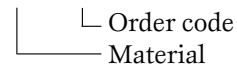
► Order code: BOM-85xx-2502

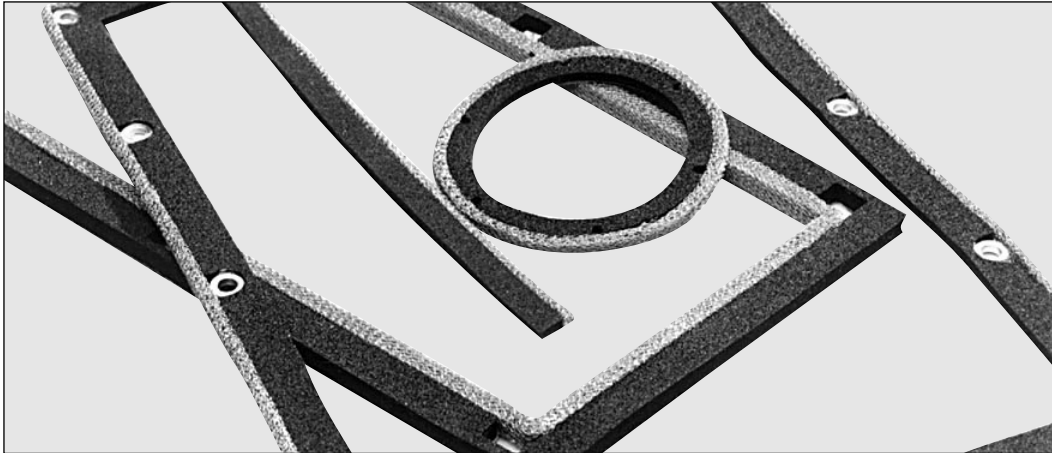


**Ordering Information**

► The ordering code consists of the material code, followed by the order code for dimensions:

BOM-xxxx-xxxx





## General Description

- ▶ BOM 8 combi gasket consists of knitted wire mesh adhered to a sponge elastomer. Wire mesh knitted over elastomer is shown separately on pages xx to xx. This combination provides both EMI/RFI shielding as well as environmental seal. Combi gaskets are available in continuous lengths and different profiles or as frame gasket made per customer specification. Combi gaskets can be supplied with an adhesive backing on the elastomer to facilitate assembly.
- ▶ Special combinations are possible at any time. Gaskets shown herein only indicate some of the possibilities. The recommended compression is 20 % of the total thickness.
- ▶ BOM 8 gaskets can compensate major uneven spots and are therefore often preferred as lid gasket in enclosures. Despite the low compression required, the gasket provides a constant shielding performance and environmental seal and will not be affected adversely even in case of repeated opening / closing. The combi gasket can also be equipped with compression stops as additional protection.
- ▶ Please note that dimensions are metric standards and can at any time be converted into inches.
- ▶ **Monel = Alloy of copper (30 %) and nickel (67 %)**  
**SCF = Tinned copperclad steel. Steel (64 %), copper (34 % min), tin (2 %).**

## Specifications

### Mesh:

- ▶ Monel: Ø 0,114 mm, DIN 17743/17750
- ▶ Aluminium: Ø 0,127 mm, AMS-4182, Alloy 5056
- ▶ Stainless steel: Ø 0,114 mm, DIN 17440
- ▶ SCF: Ø 0,114 mm, ASTM-B-520

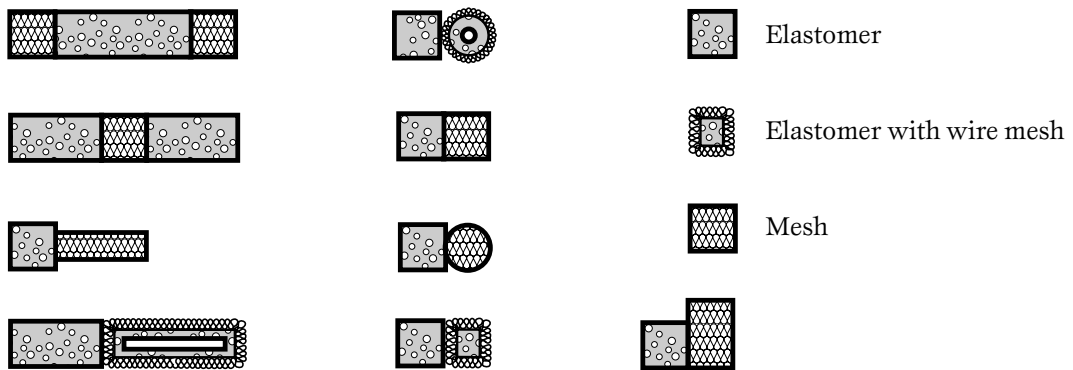
### Elastomer:

- ▶ Sponge neoprene: MIL-R-6130, Type 2 Grade A, similar to shore 15 - 25  
 Temperature: - 31° to + 100°C  
 Colour: black
- ▶ Sponge silicone: AMS-3195, similar to shore 15 - 25  
 Temperature: - 75° to + 205°C
- ▶ Sponge EPDM: Density: 550 - 650 kg/m<sup>3</sup>  
 Temperature: - 40° to + 100°C  
 Colour: black

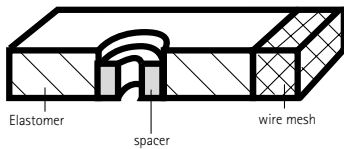
**Mechanical Tolerances**

- ▶ **Sponge elastomer:**
  - Height 2 - 3 mm: ± 0,4 mm
  - > 3 - 12 mm: ± 0,8 mm
- ▶ **Knitted mesh:**
  - Width up to 25 mm: ± 0,8 mm
  - 2 - 5 mm: + 0,4 - 0
  - > 5 - 10 mm: + 0,5 - 0,3
  - > 10 mm: + 1,5 - 0,5

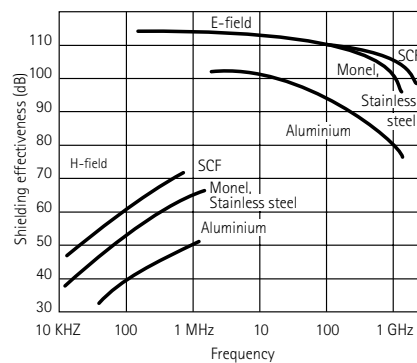
**Examples of Special Compositions**



**Gasket with compression stop**



**Shielding Performance**



**Material Code**

Elastomer	Mesh			
	Monel	Alu	Stainless steel	SCF
Sponge neoprene	-4011-	-4012-	-4013-	-4014-
Sponge silicone	-4211-	-4212-	-4213-	-4214-
Sponge EPDM	-4511-	-4512-	-4513-	-4514-

**Standard strip**

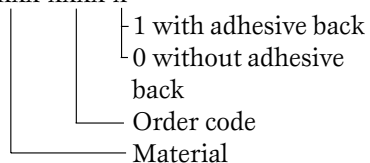
Dimensions in mm

Elastomer		Mesh		Order code
Height <b>H</b>	Width <b>B</b>	Width <b>C</b>	Height <b>D</b>	
2	6	3	2	-1001
	9	3	2	-1002
	13	3	2	-1003
	16	3	2	-1004
	19	3	2	-1005
3	3	3	3	-1006
	5	3	3	-1007
	6	3	3	-1008
	6	6	3	-1009
	9	3	3	-1010
	10	3	3	-1049
	11	3	3	-1037
	12	3	3	-1090
	13	3	3	-1011
	13	6	3	-1012
	13	13	3	-1013
	16	3	3	-1014
19	3	3	-1015	
5	5	3	3	-1016
	6	3	4	-1017
	6	3	5	-1018
	9	3	5	-1019
	13	3	5	-1020
	19	6	5	-1021
6	6	3	6	-1022
	13	3	6	-1023
9	6	3	9	-1025
	13	6	9	-1026

**Ordering Information**

- ▶ The ordering code consists of the material code, followed by the order code for dimensions and additionally the digit whether adhesive back or not.

BOM-xxxx-xxxx-x



**Combinations as following will make sense:**

- ▶ Elastomer: Height H from 2 .. 10 mm  
Width B from 3 .. 25 mm
- ▶ Mesh: Height D from 2 .. 10 mm  
Width C from 2 .. 18 mm

