

Combined seals are high performance seals that combine sealing and electrical continuity in all applications of enclosures, enclosures, hatches... These gaskets are made by bonding a strand of metal knitting yarn with an elastomer band (neoprene, EPDM or silicone). These seals make it possible to seal against runoff. An adhesive is put in place under the elastomeric part to help fasten the seal. If an IP 68 seal is requested, in this case the elastomer used must be fluorinated silicone as well, the resistance to external aggressions (chemical, fluids...) is ensured and that the conductive part is a silicone surrounded by knitting. We realize these Gaskets only on specifications.



Technical Characteristics

Features	Units	Values	Remarks
Material			
Elastomeres	/	Cellular Neoprene (NC), Cellular EPDM (EC), Cellular Silicone (SC) and/or Compact Silicone (SK). Fluorosilicone (FS)	
Strand/conductors	/	Monel (MO), Stainless Steel (AI), Tinned Copper (CU) and/or Aluminum (AL).	Wire strand diameter 0.11mm.
Tape	/	Double sided acrylic.	Non-electric
Standards Sizes			
Thickness	mm	2,4 à 9,5	Other sizes, contact us.
Width	mm	9,6 à 28,6	Other sizes, contact us.
Length	m	10 mini	Stranded
General Properties			
shielding efficiency	dB	See Shielding Materials Table.	Selon MIL STD 285
operating temperature	°C	-40 à + 70	Neoprene/ Cellular EPDM
operating temperature	°C	-50 à + 200	compact silicone
Deflection (min/max)	%	10 à 25	

The compression varies according to the hardness of the elastomers, we can nevertheless be based on these values.

Shielding attenuation

Attenuation in dB +/- 5 (depending on mesh diameter used: 0.11mm)	FREQUENCIES							
	Champ H			Champ E			Onde plane	
	10 KHz	100 KHz	1 MHz	1 MHz	10 MHz	100 MHz	1 GHz	10 GHz
Tinned copper	62	61	60	108	108	108	106	98
Stainless steel	39	40	48	102	102	102	102	100
Monel	50	51	53	107	107	107	103	81
Aluminium	49	50	51	106	106	106	100	63

The attenuation varies according to the compression especially in H-field and in plane wave. These values are given for type S10 on a cellular neoprene basis and tested according to MIL STD 285.

General Tolerances

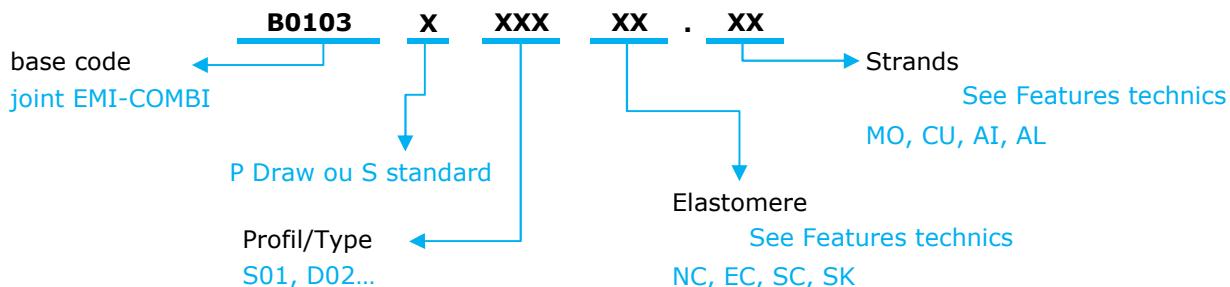
Elastomeres	
Values	Tolerances
2 à 3	+/- 0,4
4 à 12	+/- 0,8

Data expressed in mm.

Conductors	
Values	Tolerances
2 à 5	+0,4 / - 0
6 à 10	+0,5 / - 0,3
> 10	+1,2 / - 0,5



Product coding



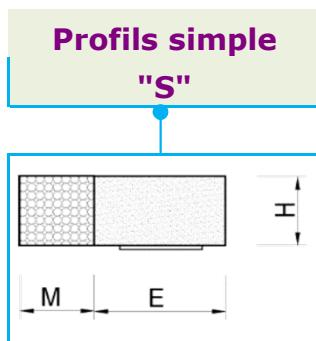
Standard product example: **B0103SD02EC.AL**

→ EMI-COMBI Seal, Type 02 Double "D" Profile, Cellular EPDM Elastomer, and Aluminum Strand.

Example produced on plan: B0103P..... (defined by AB2E)

→ EMI-COMBI Gasket, Customer Plan Profile

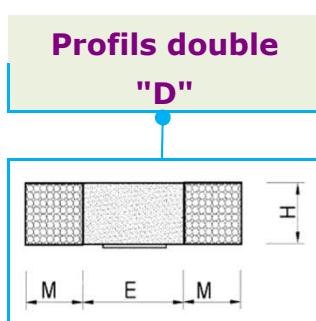
Standard shapes and dimensions



Type	H	M	E
S01	2.4	3.2	6.4
S02	2.4	3.2	9.5
S03	3.2	3.2	12.7
S04	3.2	3.2	15.9
S05	3.2	6.4	12.7
S06	4.8	4.8	12.7
S07	4.8	6.4	15.9

Type	H	M	E
S08	4.8	6.4	19.1
S09	4.8	9.5	12.7
S10	6.4	6.4	15.9
S11	6.4	9.5	19.1
S12	9.5	6.4	12.7
S13	9.5	6.4	19.1

Data expressed in mm.



Type	H	M	E
D01	3.2	3.2	6.4
D02	3.2	3.2	9.5
D03	3.2	3.2	12.7
D04	3.2	6.4	9.5
D05	3.2	6.4	12.7

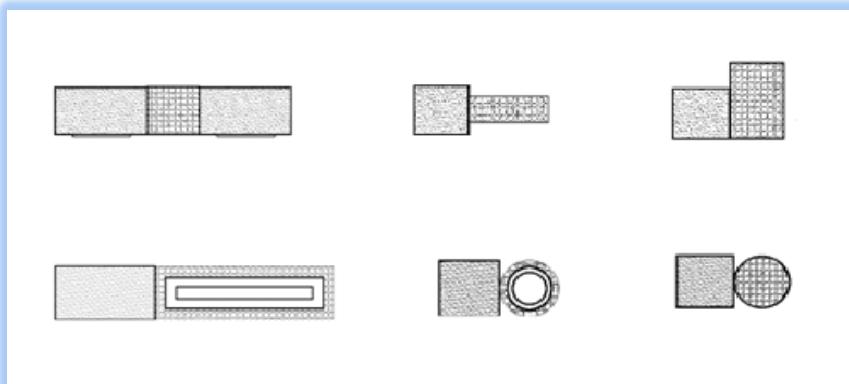
Type	H	M	E
D06	4.8	3.2	6.4
D07	4.8	3.2	12.7
D08	4.8	6.4	12.7

Data expressed in mm.

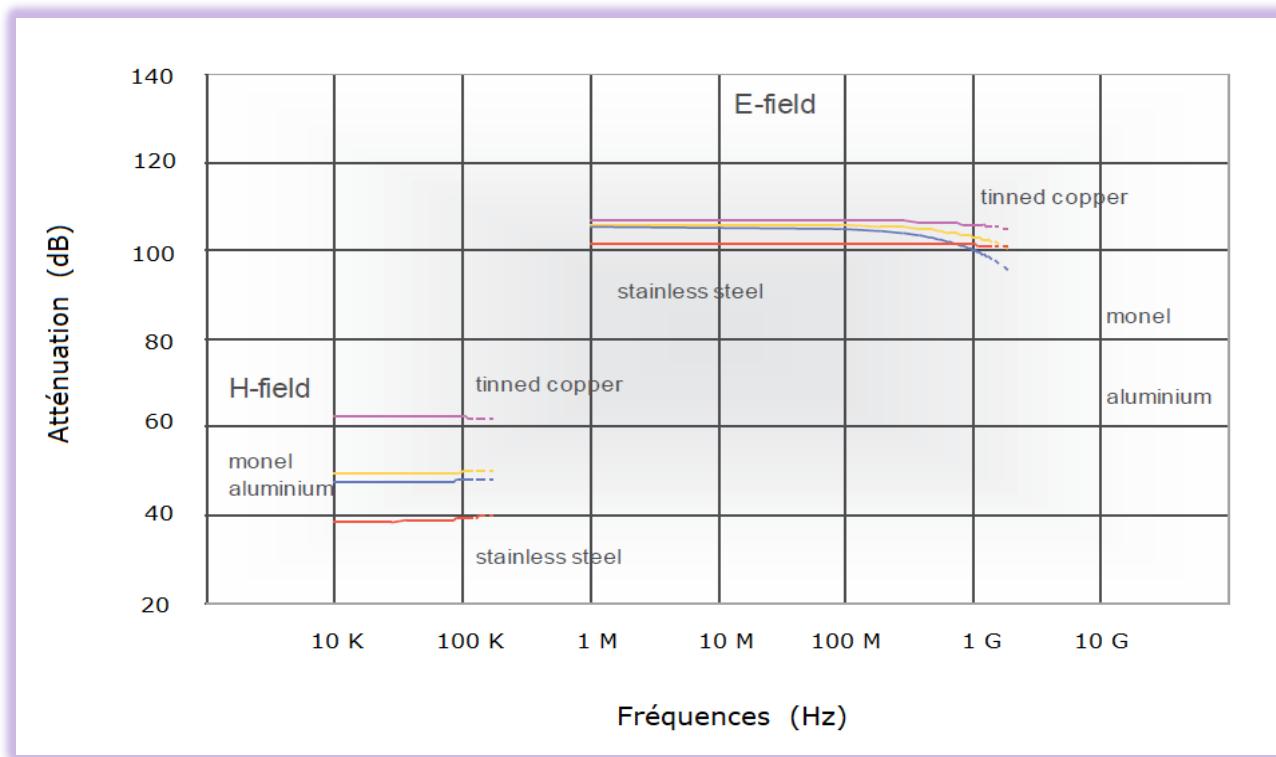
M= Toron de fils - E:= Elastomere

⊕ Special Profiles

We can offer you on request (according to plan dxf+pdf) other profiles like:



⊕ Comparison of Armor Efficiency



This graph compares the overall performance of our joints in E and H fields manufactured with the different materials: monel, stainless steel, tinned copper and aluminum.
Profile Test: Type S10 Neoprene Cell According to MIL STD 285.

The results were obtained under laboratory conditions and should be considered only as an indication. As AB2E has no control over its customers' equipment and many other factors, it is the user's responsibility to carry out its own tests to ensure that the product corresponds to its needs.