

Explanations and instructions

Designations

Elastomer designation in accordance with ASTM D 1418-76

CR	Polychlorinated butadiene e.g. Neoprene
EPDM	Ethylene-propylene terpolymers e.g. Keltan
NBR	Acrylonitrile butadiene copolymers e.g. Perbunan, Nitrile
NR	Natural rubber (polyisoprene)

Elastomers and their properties

Chemical designation		Natural rubber	Nitrile rubber	Chloroprene-rubber	Ethylene-propylene-diene-rubber
Acronym according to ASTM D 1418		NR	NBR	CR	EPDM
Hardness range (Shore A) +/-5		40-90	45-90	40-90	40-85
Tear resistance N/mm ²		4-15	4-14	5-15	6-13
Rebound resilience at 20°C		++	0	+	+
Abrasion resistance		++	+	+	+
Elastic properties		++	+	+	+
Chemical resistance	A	+	0	+	++
Resistance to oil	A	-	++	+	-
Resistance to fuels	A	none	+	-	-
Solvent resistance	A	-	+	+	0
Temperature resistance °C	C	-40 to +80	-30 to +100	-25 to +100	-40 to +100
Ozone resistance		0	0	++	++
Gen. weathering resistance		+	+	++	++
Gas impermeability		0	+	+	0
Resistance to permanent deformation	B	++	+	+	+
Bonding to metal		++	0	+	0
Dielectric properties		++	-	0	++

Explanation of symbols

A = Because of the numerous possible chemicals, solvents, application-temperatures and duration, the values stated may vary in individual cases. In particular, a type of elastomer that generally displays a low resistance may be very resistant to certain media.

B = In general, the resistance declines at relatively low or high temperatures.

C = These are limits that may fluctuate according to the composition of the mixture. Continuous use at limit levels brings about a change in the physical values. Special elastomer mixtures are necessary for extreme loads.

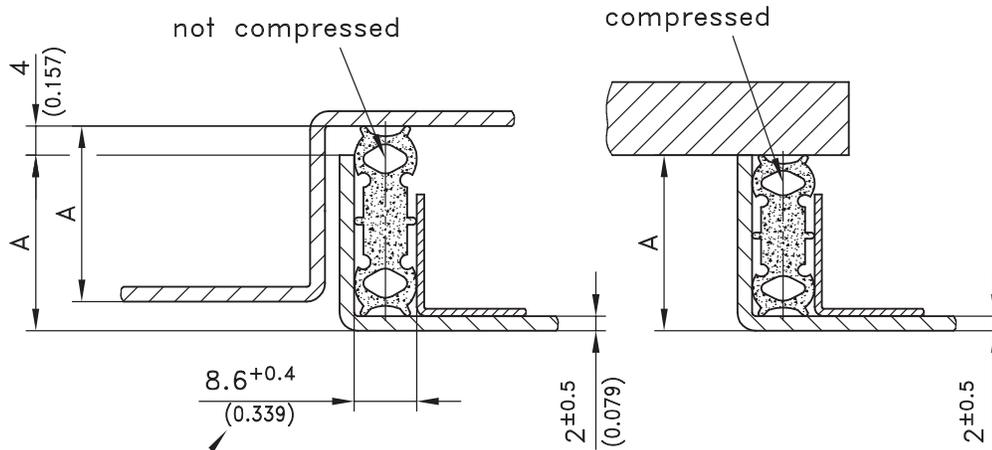
++ = excellent to very good

+ = good

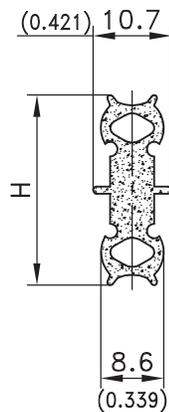
o = satisfactory to moderate

- = low to poor

Examples of application



Groove width must not be smaller than 8,6mm (0.339). The best sealing result is only achieved in case the gasket can move freely in the groove and is only hold in position by the 2 central "ears".



4-lip seals for optimal sealing of doors and panels, with high tolerance compensation at minimal compression.

- Balanced sealing properties between gasket/frame and gasket/door.
- Special lips on the sides allow defined longitudinal movement but prevent the seals from falling out when opening the door.
- The result: the compression forces between gasket/frame and gasket/door are nearly the same and consequently the sealing properties.
- The double symmetry of the 4-lip seals prevents incorrect fitting. The sealing characteristics are the same for both high-pressure and vacuum applications. They can be used for 90° corners without warping or folding.

- Details for tolerances refer to product system 5-001.
- Customized designs: If the cross-sections shown here are not suitable for your specific application, we can produce a customized profile to meet your needs.
- All standard door seals are available from stock.

Material:

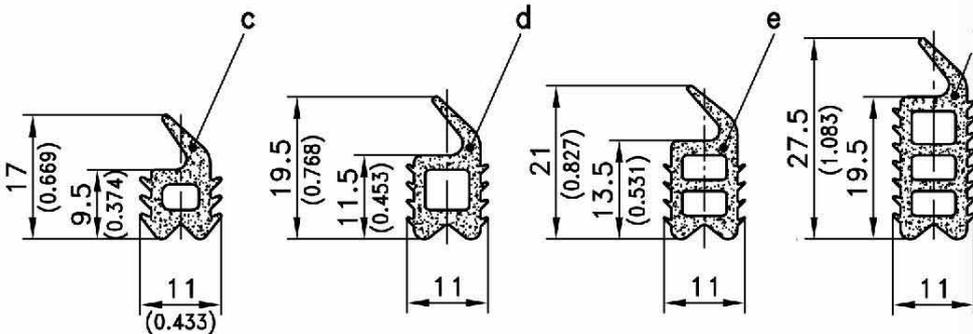
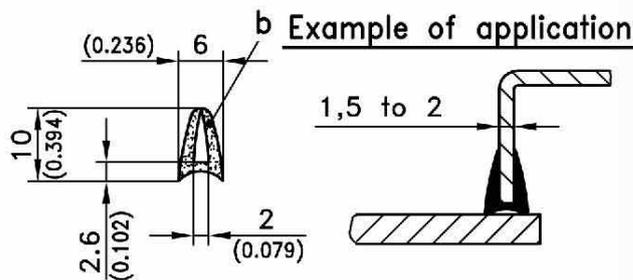
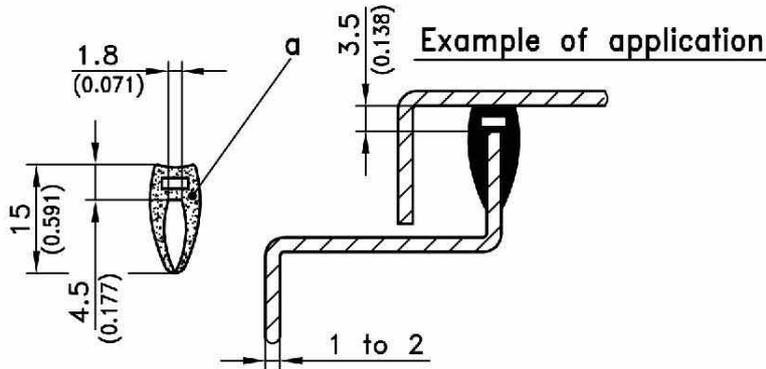
- **Sponge rubber**
Quality: EPDM

color	H = height mm / inch	A = bending mm / inch	packaging unit	Part No.
black	18 / 0.709	16 ⁺¹ / 0.630	40m	209-0118
black	20 / 0.787	18 ⁺¹ / 0.709	40m	209-0120
black	22 / 0.866	20 ⁺¹ / 0.787	40m	209-0122
black	24 / 0.945	22 ⁺¹ / 0.866	40m	209-0124
black	26 / 1.024	24 ⁺¹ / 0.945	40m	209-0126
black	28 / 1.102	26 ⁺¹ / 1.024	40m	209-0128

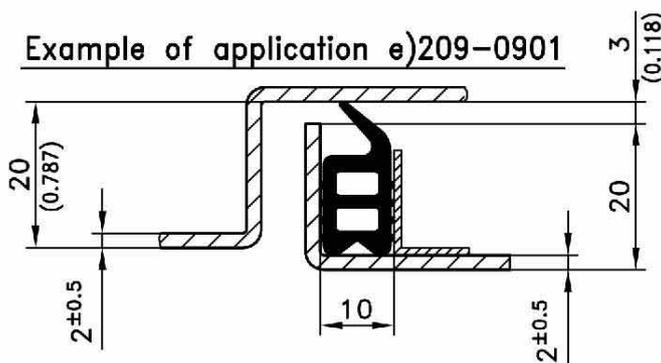
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Example of application e) 209-0901



to a) and b):

Basic door seals for lids, doors and paneling, made of EPDM.

- Simple fitting: these seals are simply pushed onto sheet metal edges. If necessary seals have to be glued.
- No radius or mitering necessary: no warping or folds.

to c) to f):

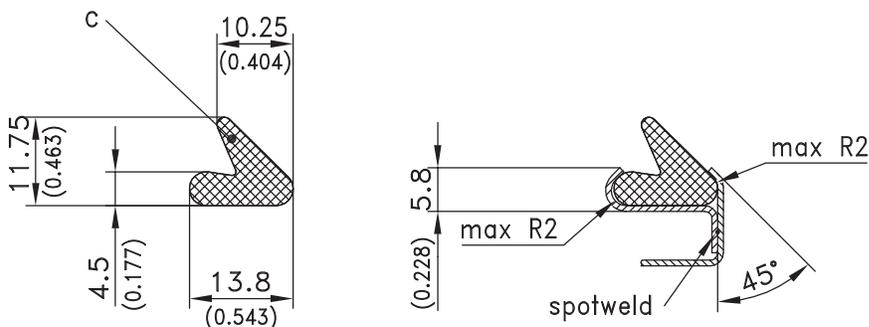
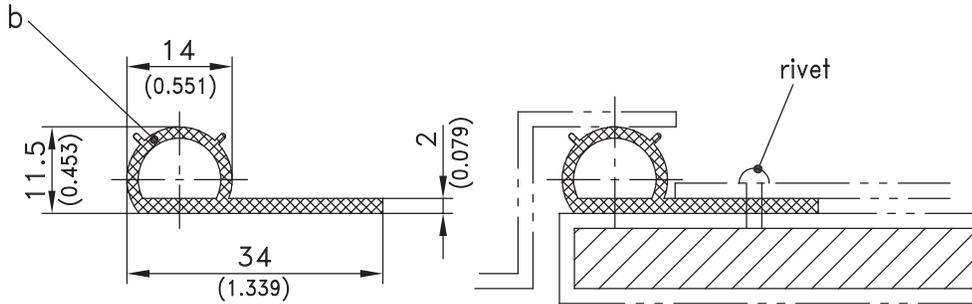
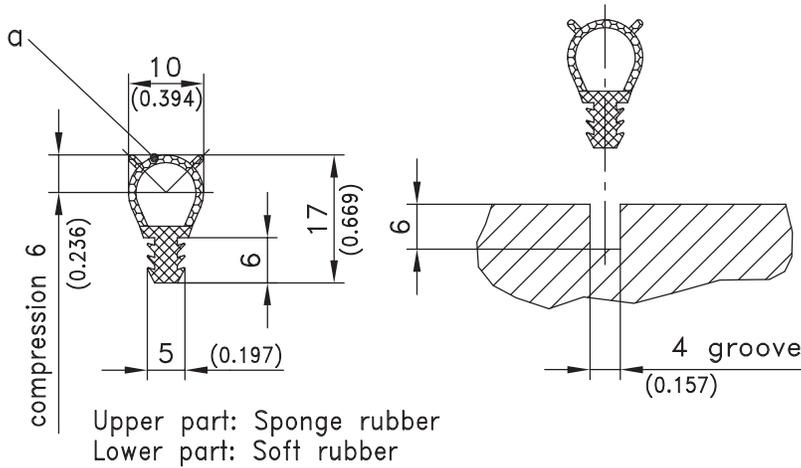
Conventional door seals made of PVC for applications into seal channels.

- Several versions for different door bendings available.
- For higher requirements regarding sealing properties and easy fitting please refer to catalog page 5-100.
- Tolerances: EPDM: DIN 7715 E2
- Customized designs: If the cross-sections shown here are not suitable for your specific application, we can produce a customized profile to meet your needs.
- All standard door seals are available from stock.

	material	color	packaging unit	Part No.
a)	EPDM	black	50m	209-0302
b)	EPDM	black	50m	209-0301
c)	PVC	black	100m	209-0903
d)	PVC	black	20m	209-0902
e)	PVC	black	50m	209-0901
f)	PVC	black	100m	209-0904

D 15/02/02
A 1/15/03

Examples of application



Special profiles made of EPDM for application according to the shown examples.

- Details for tolerances refer to product system 5-001.

Customized designs:

- If the cross-sections shown here are not suitable for your specific application, we can produce a customized profile to meet your needs.

material	color	packaging unit	Part No.
a) EPDM	black	50m	209-0704
b) EPDM / 55° Shore A	black	50m	209-1203
c) EPDM / 25° Shore A	black	20m	241-0903