

# Envelopes



PTFE envelopes are PTFE-covered face seals and are used in flange connections exposed to high chemical stresses. The standard material is pure PTFE, however, where higher pressure resistance is required, modified PTFE and PTFE compounds can be used.

Excellent sealing characteristics and high chemical resistance are the advantages of PTFE-enveloped seals. They are also suited for fluctuating pressures and temperatures from  $-195\text{ }^{\circ}\text{C}$  to  $+250\text{ }^{\circ}\text{C}$ . This is why they find preferred use not only in the chemical but also in the food and pharmaceutical industries.

With PTFE-enveloped seals, connecting glass tubes and glass equipment in laboratory and pilot scale systems is just as easy as connecting enameled, coated or lined tubes in large scale plants.

## Diffusion barrier

The PTFE envelope has a thicker design in the area with product contact in order to reduce medium diffusion.

## Designs



Rectangular envelope



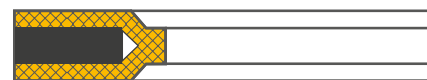
Rectangular envelope with diffusion barrier



U envelope



U envelope with diffusion barrier



Y envelope

	Material	Operating conditions
Envelope	CCN-01 (PTFE pure)	Standard material in various sizes
	CCN-02 (PTFE modified)	Higher pressure resistance, higher pore density
	CCN-COND (PTFE conductive)	Electrostatic dissipative



These PTFE-enveloped seals are frequently used for flanges with an even sealing surface acc. to EN 1514-1 and DIN 2690.

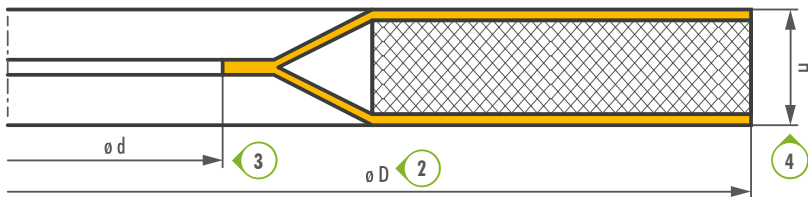
**With EN 1514-1 form**

DN	d	PN D						
		2.5	6	10	16	25	40	
10	18		39				46	
15	22		44				51	
20	27		54				61	
25	34		64				71	
32	43		76	use PN 40		use PN 40	82	
40	49		86				92	
50	61		96			use PN 40	107	
60	72		106				117	
65	77		116				127	
80	89	use PN 6	132				142	
100	115			152		162	168	
125	141			182	use PN 16	192	194	
150	169			207		218	224	
200	220			262		273	284	290
250	273			317	328	329	340	352
300	324			373	378	384	400	417
350	356			423	438	444	457	474
400	407			473	489	495	514	546
450	458			528	539	555	564	571
500	508		578	594	617	624	628	
600	610		679	695	734	731	747	

**With DIN 2690\* form**

DN	d	PN D						
		1 a. 2.5	6	10	16	25	40	
4	6		-	-	-	30	-	
6	10		28				38	
8	14		33				43	
10	18		38				45	
15	22		43				50	
20	28		53		use PN 40	use PN 40	60	
25	35		63		use PN 40		70	
32	43		75			use PN 40	82	
40	49		85				92	
50	61		95				107	
65	77	use PN 6	115				127	
80	90			132			142	
100	115			152		162	168	
125	141			182		192	195	
150	169			207	use PN 16	218	225	
(175)	195			237		248	255	267
200	220			262		273	285	292
250	274			318	328	330	342	353
300	325			373	378	385	402	418
350	368			423	438	445	458	475
400	420		473	490	497	515	547	
(450)	470		528	540	557	565	572	
500	520		578	595	618	625	628	
600	620		680	695	735	730	745	

\* DIN 2690 has been replaced by DIN EN 1514-1



To place a quick order for the correct product, please use the order information system below.

SYSTEM: **Design** + **Standard** + **Nominal size** **Outer diameter D** x **Inner diameter d** x **H** » **Material**

1
2
3
4
5

EXAMPLE: **Y envelope EN 1514-1 DN100 PN6 152 x 115 x 3 Envelope PTFE pure, insert fiber material**

1
2
3
4
5