Pseals
Polymer Sealing Solutions

PROFILE **RANGE**

Polymer Sealing Solutions

CONTENT

WIPERS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	WR01	PU NBR	-	-30 to 105 -25 to 100	4
	WR01A	PU NBR	-	-30 to 105 -25 to 100	4
	WR02	PU NBR	-	-30 to 105 -25 to 100	4
	WR02A	PU NBR	-	-30 to 105 -25 to 100	4
	WR02B	PU NBR	-	-30 to 105 -25 to 100	4
	WR02C	PU NBR	-	-30 to 105 -25 to 100	4
	WR02D	PU PU-D57	-	-30 to 105	4
	WR03	PU/POM * NBR/POM *	-	-30 to105 -25 to100	4
	WR04	PU NBR	-	-30 to 105 -25 to 100	4
	WR07	POM PA PU-D57	-	-50 to 80 -50 to 80 -30 to 105	1
	WR08	POM PA PU-D57	-	-50 to 80 -50 to 80 -30 to 105	1
	WR11	PU NBR	-	-30 to 105 -25 to 100	4
	WR12	PU NBR	-	-30 to 105 -25 to 100	4
	WR13	PTFE/NBR	15	-25 to 100	10
	WR13_E2	PTFE/NBR	15	-25 to100	10
	WR14	PTFE/NBR	15	-25 to 100	10
	WR15	PTFE/NBR	15	-25 to100	10
	WR16	PTFE/NBR	15	-25 to100	10
	WR17	PU NBR	-	-30 to 105 -25 to 100	4
	WR18	PU NBR	-	-30 to 105 -25 to 100	4

* For technical reasons POM should be used up to a maximum temperature of 80° C only. For higher temperature we recommend Alinum/Steel.

ROD SEALS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	RS01	PU NBR FPM	400 160 160	-30 to 105 -25 to 100 -20 to 210	0,5
	RS01A	PU NBR FPM	300 160 160	-30 to 105 -25 to 100 -20 to 210	0,5
	RS01B	PU NBR FPM	400 160 160	-30 to 105 -25 to 100 -20 to 210	0,5
	RS01C	NBR FPM	160 160	-25 to 100 -20 to 210	1
	RS02	PU/POM NBR/POM FPM/PTFE	700 250 250	-30 to 100 -25 to 100 -20 to 210	0,5
	RS02A	PU/POM NBR/POM FPM/PTFE	700 250 250	-30 to 100 -25 to 100 -20 to 210	0,5
	RS02B	PU/PTFE	700	-30 to 105	0,5
	RS02C	PU/POM	400	-25 to 100	5
	RS03	PU/NBR	400	-25 to 100	0,5
	RS04	PU/NBR/POM	700	-25 to 100	0,5
	RS04A	PU/NBR/POM	700	-25 to 100	0,5
	RS05	PU NBR	25	-30 to 105 -25 to 100	1
	RS05A	PU NBR	25	-30 to 105 -25 to 100	1
	RS08	PU NBR	400 160	-30 to 105 -25 to 100	0,3
	RS09	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	RS09A	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	RS09B	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	RS10-12B	PU/POM NBR/POM	500 250	-30 to 100 -25 to 100	0,7
	RS91	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	RS91B	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	RS16	PU NBR	160	-30 to 105 -25 to 100	0,5

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	RS17	PU NBR	400 160	-30 to 105 -25 to 100	0,5
	RS17A	PU/POM	700	-30 to 100	0,5
	RS17B	PU/NBR	400	-25 to 100	0,5
	RS17C	PU/NBR/POM	700	-25 to 100	0,5
	RS17D	PU NBR	400 160	-30 to 105 -25 to 100	0,3
	RS17E	PU/POM	700	-30 to 100	0,3
	RS19	PTFE-virgin / V-spring PTFE-filled / V-spring	200 400	-200 to 260	15
	RS19A	PTFE/V-spring	150	-200 to 260	2
	RS20	NBR/POM	700	-25 to 100	0,5
	RS31-33	PU/POM	500	-30 to 100	0,5
	RS35	PU	400	-30 to 105	0,4
	RS35A	PU	400	-30 to 105	0,4

PISTON SEALS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	PS01	PU NBR FPM	400 160 160	-30 to 105 -25 to 100 -20 to 210	0,5
	PS01A	PU NBR FPM	300 160 160	-30 to 105 -25 to 100 -20 to 210	0,5
	PS01B	PU NBR FPM	400 160 160	-30 to 105 -25 to 100 -20 to 210	0,5
	PS01C	NBR FPM	160 160	-25 to 100 -20 to 210	1
	PS02	PU/POM NBR/POM FPM/PTFE	700 250 250	-30 to 100 -25 to 100 -20 to 210	0,5
	PS02A	PU/POM NBR/POM FPM/PTFE	700 250 250	-30 to 100 -25 to 100 -20 to 210	0,5
	PS03	PU/NBR	400	-25 to 100	0,5
	PS04	PU/NBR/POM	700	-25 to 100	0,5
	PS04A	PU/NBR/POM	700	-25 to 100	0,5
	PS05	PU NBR	25	-30 to 105 -25 to 100	1
	PS05A	PU NBR	25	-30 to 105 -25 to 100	1
	PS08	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 15
	PS08A	PU/NDR PU-D57/NBR PTFE/NBR	250 400 400	-25 to 100	1 5 15
	PS08B	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	PS08C	PTFE/NBR	400	-25 to 100	2
	PS08D	PTFE/NBR	400	-25 to 100	3
	PS08E	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	PS08F	PU-D57/NBR PU/NBR	400 250	-25 to 100	5 1
	PS81	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	PS81B	PU-D57/NBR PTFE/NBR	600 400	-25 to 100	5 10
	PS81C	PU/NDR PU-D57/NBR PTFE/NBR	250 400 400	-25 to 100	1 5 15

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	PS09	PU/NBR/POM	400	-25 to 100	0,5
	PS09A	PTFE/NBR/POM	400	-25 to 100	1
	PS10-12B	PU/POM NBR/POM	500 250	-30 to 100 -25 to 100	0,7
	PS16	PU NBR	160	-30 to 105 -25 to 100	0,5
	PS16A	PU NBR	160	-30 to 105 -25 to 100	0,5
	PS17	PU/POM NBR/POM	400 250	-25 to 100	0,5
	PS17A	PU/POM NBR/POM	400 250	-25 to 100	0,5
	PS17B	PU/POM NBR/POM	400 250	-25 to 100	0,5
	PS19	PTFE-virgin / V-spring PTFE-filled / V-spring	200 400	-200 to 260	15
	PS19A	PTFE-virgin / V-spring PTFE-filled / V-spring	200 400	-200 to 260	2
	PS20	NBR/POM	700	-25 to 100	0,5
	PS23	PU/NBR/POM	400	-25 to 100	0,5
	PS35	PU	400	-30 to 105	0,4
	PS35A	PU	400	-30 to 105	0,4

SYMETRICAL SEALS | PISTON SEALS | ROD SEALS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	PRS06	PU NBR	400 160	-30 to 105 -25 to 100	0,5
	PRS06A	PU NBR	300 160	-30 to 105 -25 to 100	0,5
	PRS06B	PU NBR	400 160	-30 to 105 -25 to 100	0,5
	PRS06C	PU NBR	400 160	-30 to 105 -25 to 100	0,3
	PRS06D	PU NBR	400 160	-30 to 105 -25 to 100	0,5
	PRS06E	PU NBR	400 160	-30 to 105 -25 to 100	0,5
	PRS07	PU/NBR	400	-25 to 100	0,5
	PRS10SP	PU FPM POM	-	-30 to 105 -20 to 210 -60 to 100	-
	PRS10-12	PU/POM NBR/POM	500 250	-30 to 100 -25 to 100	0,5
	PRS10-12A	PU/POM NBR/POM	500 250	-30 to 100 -25 to 100	0,7
	PRS13-15	PU/POM NBR/POM	500 250	-30 to 100 -25 to 100	0,5
	PRS18	PU/NBR	400	-25 to 100	0,5
	PRS19	PTFE-virgin / V-spring PTFE-filled / V-spring	200 400	-200 to 260	15
	PRS19B	PTFE-virgin / Helicoil Spring PTFE-filled / Helicoil Spring	200 400	-200 to 260	5
	PRS19C	PTFE-virgin / Helicoil Spring PTFE-filled / Helicoil Spring	200 400	-200 to 260	5
	PRS19D	PTFE-virgin / Helicoil Spring PTFE-filled / Helicoil Spring	200 400	-200 to 260	5
	PRS22	PU/POM NBR/POM FPM/PTFE	400 160 160	-30 to 100 -25 to 100 -20 to 210	0,5
	PRS25-27	PTFE-virgin PTFE-filled	100	-200 to 260	1,5
	PRS99	PU NBR FPM	400 160 160	-30 to 105 -25 to 100 -20 to 210	0,5

BACK-UP RINGS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	BUR08	POM PTFE	-	-60 to 100 -200 to 260	-
	BUR09	POM PTFE	-	-60 to 100 -200 to 260	-
	BUR10	POM PTFE	-	-60 to 100 -200 to 260	-
	BUR11	POM PTFE	-	-60 to 100 -200 to 260	-
	BUR12	POM PTFE	-	-60 to 100 -200 to 260	-
	BUR13	POM PTFE	-	-60 to 100 -200 to 260	-

GUIDE RINGS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	BWR01	POM PTFE Polyester-fabric*	-	-60 to 100 -200 to 260 -40 to 130	4
	BWR01A	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR03	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR04	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR05	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR06	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR07	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR08	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR09	-	-	-	-

* Various dimensions available in reels.

ROTARY SEALS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	OS01A	PU/POM* NBR/POM* FPM/PTFE	0,5 0,5 0,5	-30 to 100 -25 to 100 -20 to 210	5 10 15
	OS02A	PU/POM* NBR/POM* FPM/PTFE	0,5 0,5 0,5	-30 to 100 -25 to 100 -20 to 210	5 10 15
	OS03A	PU NBR FPM	0,5 0,5 0,5	-30 to 100 -25 to 100 -20 to 210	5 10 15
	OS08	PU NBR	-	-30 to 105 -25 to 100	5 10
	OS08A	PU NBR	-	-30 to 105 -25 to 100	5 10
	R03	PU/POM NBR/POM	400 250	-30 to 100 -25 to 100	0,2 0,2
	R04	PU NBR	160 100	-30 to 105 -25 to 100	0,2 0,2
	R04A	PU NBR	160 100	-30 to 105 -25 to 100	0,2 0,2
	R05	PU NBR	160 100	-30 to 105 -25 to 100	0,2 0,2
	R05A	PU NBR	160 100	-30 to 105 -25 to 100	0,2 0,2
	VR06	NBR	-	-25 to 100	25
	VR07	NBR	-	-25 to 100	25
	R08	PTFE/NBR	350	-25 to 100	0,4
	R08D	PTFE/NBR	350	-25 to 100	0,4
	R09	PTFE/NBR	350	-25 to 100	0,4
	R09A	PTFE/NBR	350	-25 to 100	0,4
	R10	PTFE/NBR	350	-25 to 100	0,4
	R10A	PTFE/NBR	350	-25 to 100	0,4
	R11	PTFE/NBR	350	-25 to 100	0,4
	R11D	PTFE/NBR	350	-25 to 100	0,4

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	R35A	PU NBR	800 250	105 100	-
	R35B	PU NBR	800 250	105 100	-

* For technical reasons POM should be used up to a maximum temperature of 80° C only.
For higher temperature we recommend Aluminum/Steel.

STATIC SEALS AND O-RINGS

P-seals
Polymer Sealing Solutions

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	FL01A	PU FPM EPDM	400 250 250	-30 to 105 -20 to 210 -50 to 130	-
	FL02B	PU FPM EPDM	400 250 250	-30 to 105 -20 to 210 -50 to 130	-
	FL03	PU NBR FPM	600 250 250	-30 to 105 -25 to 100 -20 to 210	-
	FL04	PU NBR	400 160	-30 to 105 -25 to 100	0,3
	FL05	PU NBR	400 160	-30 to 105 -25 to 100	0,3
	FL06	PTFE-virgin / Helicoil Spring PTFE-filled / Helicoil Spring	200 400	-60 to 200	0,1
	FL07	PTFE-virgin / Helicoil Spring PTFE-filled / Helicoil Spring	200 400	-60 to 200	0,1
	FL08	PTFE-virgin / Helicoil Spring PTFE-filled / Helicoil Spring	200 400	-60 to 200	0,1
	OR	PU NBR FPM	600 160 160	-30 to 105 -25 to 100 -20 to 210	-
	ORH	PU NBR FPM	600 160 160	-30 to 105 -25 to 100 -20 to 210	-
	ORV	PU NBR FPM	600 160 160	-30 to 105 -25 to 100 -20 to 210	-
	QR01	PU NBR FPM	600 160 160	-30 to 105 -25 to 100 -20 to 210	-
	QR02	PU NBR FPM	600 160 160	-30 to 105 -25 to 100 -20 to 210	-
	SS01	PU NBR FPM	600 250 250	-30 to 105 -25 to 100 -20 to 210	-

CUSTOMIZED SEALS AND MACHINED PARTS

Profile					
					
					

MINING SEALS

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	P50	PU/POM	400 dyn. 1500 stat.**	-30 to 100	0,5 0,2
	P50A	PU/POM	400 dyn. 1500 stat.**	-30 to 100	0,5 0,2
	P51	PU/NBR/POM	400 dyn. 1500 stat.**	-25 to 100	0,5 0,2
	P51A	PU/NBR/POM	400 dyn. 1500 stat.**	-25 to 100	0,5 0,2
	P51G	PU/NBR/POM	400 dyn. 1500 stat.**	-25 to 100	0,5 0,2
	P52	PU/POM	700 dyn. 1500 stat.**	-30 to 100	0,5 0,2
	P53	PU/NBR/POM	700 dyn. 1500 stat.**	-25 to 100	0,5 0,2
	P54	PU/NBR/POM	400 dyn. 1500 stat.**	-25 to 100	0,5 0,2
	P54A	PU/NBR/POM	400 dyn. 1500 stat.**	-25 to 100	0,5 0,2
	P55	PU/POM NBR/POM	700 dyn./1500 stat.** 400 dyn./1500 stat.**	-25 to 100	0,5/0,2 0,5/0,2
	R50	PU/NBR/POM	700	-25 to 100	0,5
	R50A	PU/NBR/POM	700	-25 to 100	0,5
	R51	PU/NBR	400	-25 to 100	0,5
	R52	PU/POM	700	-30 to 100	0,5
	R53	PU	400	-30 to 105	0,5
	W50	PU	-	-30 to 105	2
	W51	PU	-	-30 to 105	2

Profile	Type	Standardmaterial	Pressure (bar)	Temp. (°C)	Surface speed (m/sec)
	W53	PU/POM*	-	-30 to 80	2
	W54	PU	-	-30 to 105	2
	BWR01-P	POM PTFE	-	-60 to 100 -200 to 260	4
	BWR01-R	POM PTFE	-	-60 to 100 -200 to 260	4
	P58	PU	400	-30 to 105	0,3

* For technical reasons POM should be used up to a maximum temperature of 80° C only.
For higher temperature we recommend Aluminum / Steel.
** The maximum pressure allowance for dynamic and static application is dependent on the profile design.

The listed application parameters represent only a guide and should not occur simulatneously. Pressure, speed, temperature as well as the gap dimension, but also the fluid itself are determining factors which influence each other. The data refer to the generally valid and known data in the seal technology. By means of a careful selection of specific materials for the different applications the documented data may be optimized accordingly.

The seal geometries shown in the profile synopses are standard profiles. In addition, all the profiles can get adapted to special working conditions. Besides the listet standard profiles we deliver special profiles according to customer's drawings which match the individual requirements. All seals are turned workpieces up to an outside diameter of 1.850 mm and can get delivered with short notice.

TABLE OF MATERIALS

Polymer Sealing Solutions

	Description	Color	Application temp.	Hardn. at 20°C	Main application
POLYURETHANES * all Polyurethane grades resistant to hydrolysis	**PU S800** red		-30 to +125°C	Shore A 95 +/-2	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water, dilute acids and alkaline solutions improved chemical and thermal resistance excellent wear and friction properties
	PU S810 petrol		-25 to +100°C	Shore A 79 +/-3	U-cup seals and wipers in pneumatic applications, as a preload element replacing NBR espe-cially in large diameter range | Hydraulic fluids, oil in water emulsions, water power applications and other applications that require high abrasion resistance and elasticity at the same time
	PU S820 light green		-30 to +115°C	Shore A 90 +/-2	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water, dilute acids and alkaline solutions | Application for pneumatic and low pressure
	PU S830 orange		-30 to +135°C	Shore A 96 +/-2	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water, dilute acids and alkaline solutions | Applications at high temperature
	PU S840 light blue		-50 to +105°C	Shore A 95 +/-2	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water | Applications at low temperature
	PU S870 violet		-30 to +115°C	Shore A 95 +/-2	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water | Improved chemical resistance, suitable for CIP processes | Applicable for contact with foodstuff
	PT S880 dark red		-30 to +125°C	Shore A 95 +/-2	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water | Improved wear and friction properties for waterhydraulics and heavy duty applications with low lubrication
	PT S850 blue		-30 to +125°C	Shore D 57 +/-3	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB fluids, water, sea water | High pressure and extrusion resistance
	PT S860 grey		-30 to +125°C	Shore D 57 +/-3	Back-up rings or composite seals with preload element | Mineral oils, HFA, HFB, HFC fluids, sea water | High pressure and extrusion resistance | Improved wear and friction properties
	PU S890 green		-30 to +105°C	Shore A 95 +/-2	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water
	PU S855 yellow		-20 to +115°C	Shore D 55±3	This universally applicable material is often used to manufacture piston and rod seals. It's easy to machine, very flexible and has great high pressure resistance.
	PU S885 grey		-20 to +110°C	Shore A 96±2	This material is a polyurethane filled with solid lubricants. Mainly used for dry running applications in pneumatics.
NBR	**NBR S740** black		-25 to +100°C	Shore A 85 +/-5	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water
	NBR 95 S750 black		-25 to +100°C	Shore A 95 +/-3	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water
	NBR FDA S750 white		-22 to +100°C	Shore A 85 +/-5	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB, HFC fluids, cold water | Applicable for contact with foodstuff
H-NBR	**H-NBR S780H** black		-25 to +150°C	Shore A 83 +/-5	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB, HFC fluids, at high temperature | Aliphatic hydrocarbons, dilute acids and bases
	H-NBR RGD S785H black		-20 to +150°C	Shore A 86 +/-5	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB, HFC fluids, at high temperature | Aliphatic hydrocarbons, dilute acids and bases | RGD (ED) optimized for use in Oil & Gas Industry
	H-NBR RGD LT S790H black		-40 to +150°C	Shore A 83 +/-5	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFA, HFB, HFC fluids, at high temperature | Aliphatic hydrocarbons, dilute acids and bases | RGD (ED) optimized for low temperature use in Oil & Gas Industry | Meets the NORSOK M-710 requirements

TABLE OF MATERIALS

Polymer Sealing Solutions

	Description	Color	Application temp.	Hardn. at 20°C	Main application
FPM	**FPM S900** brown		-20 to +210°C	Shore A 84 +/-5	Lip seals, wiper rings, vee packings, oil seals at high speed and other seal elements | Mineral oils, HFD fluids at high temperature | Very good chemical resistance such as phosphates and chlorinated hydrocarbons, crude and sour gas
	FPM FDA S910 brown		-25 to +210°C	Shore A 85 +/-5	Mineral oils, HFD fluids at high temperature | Very good chemical resistance such as phosphates and chlorinated hydrocarbons, crude and sour gas | Applicable for contact with foodstuff
	FPM S920 black		-25 to +210°C	Shore A 85 +/-5	Lip seals, wiper rings, vee packings, oil seals at high speed and other seal elements | Mineral oils, HFD fluids at high temperature | Very good chemical resistance such as phosphates and chlorinated hydrocarbons, crude and sour gas
	FPM S930 black		-30 to +210°C	Shore A 86 +/-3	Lip seals, wiper rings, vee packings and other seal elements | Mineral oils, HFD fluids at high temperature | Very good chemical resistance such as phosphates and chlorinated hydrocarbons, crude and sour gas | RGD (ED) optimized for use in Oil & Gas Industry | Meets the NORSOK M-710 requirements
EPDM	**EPDM S400** black		-50 to +130°C	Shore A 85 +/-5	Lip seals, vee packings and other seal elements | Hot water and steam, ozone, dilute acids and alkaline solutions | EPDM is NOT resistant against mineral oils
	EPDM FDA S405 white		-50 to +100°C	Shore A 85 +/-5	Lip seals, vee packings and other seal elements | Hot water and steam, ozone, dilute acids and alkaline solutions | EPDM is NOT resistant against mineral oil | Applicable for contact with foodstuff
	EPDM S410 black		-45 to +120°C	Shore A 85 +/-5	Lip seals, vee packings and other seal elements | Hot water and steam, dilute acids and alkaline solutions | EPDM is NOT resistant against mineral oil | Applicable for use in drinking water
TFE	**TFE S270** black		-15 to +210°C	Shore A 86 +/-5	Lip seals, vee packings and other seal elements | Mineral oils, HFA, HFB, HFC, HFD fluids Hot water and steam, ozone, dilute acids and alkaline solutions, Sour oil and gas, amines
SILICONES	**Silicone FDA S520** red		-55 to +210°C	Shore A 85 +/-5	Flange seals, gaskets and other static seals | Mineral oils, HFA, HFB, HFC, HFD fluids, ozone Not recommended for dynamic applications | Applicable for contact with foodstuff
	Silicone FDA S510 blue		-55 to +180°C	Shore A 85 +/-5	Flange seals, gaskets and other static seals | Mineral oils, HFA, HFB, HFC, HFD fluids, ozone Not recommended for dynamic applications | Applicable for contact with foodstuff
PTFE	**PTFE S300** grey		-200 to +260°C	Shore D 55	Composite seals with elastomer preaload elements | Spring loaded seals, back-up and guide rings | Resistance to almost all common chemicals and fluids except molten alkaline metals Glass fibre / MoS2 reinforced for improved wear and extrusion resistance
	PTFE S310 grey		-200 to +260°C	Shore D62	Composite seals with elastomer preload elements.Resistance to almost all common chemicals except molten alkaline metals. Filled with natural fibers. To be used as an alternative to S340
	PTFE FDA S320 white		-200 to +260°C	Shore D 51	Composite seals with elastomer preload elements, spring loaded seals, Back-up and guide rings Resistance to almost all common chemicals and fluids except molten alkaline metals | Applicable for contact with foodstuff
	PTFE S340 bronze brown		-200 to +260°C	Shore D 62	Composite seals with elastomer preaload elements | Resistance to almost all common chemicals except molten alkaline metals | Filled with 40% bronze for improved wear, pressure and extrusion resistance
	PTFE S360 carbon grey		-200 to +260°C	Shore D 62	Composite seals with elastomer preaload elements | Spring loaded seals, back-up and guide rings, rotary seals | Resistance to almost all common chemicals except molten alkaline metals 25% carbon powder friction properties and increased extrusion resistance
PLASTICS	**POM S650** black		-50 to +100°C	-	Back-up and guide rings. Machined parts, mineral oils, acids and diluite alcaline solutions.
	POM FDA S660 white		-50 to +100°C	-	Back-up and guide rings, machined parts with tight tolerances | Mineral oils, HFA, HFB, HFC fluids | Minor absorption of water, applicable for contact with foodstuff
	PA FDA S670 natural		-30 to +100°C	-	Back-up and guide rings, machined parts | Mineral oils, acids and dilute alkaline solutions Applicable for contact with foodstuff

TABLE OF MATERIALS

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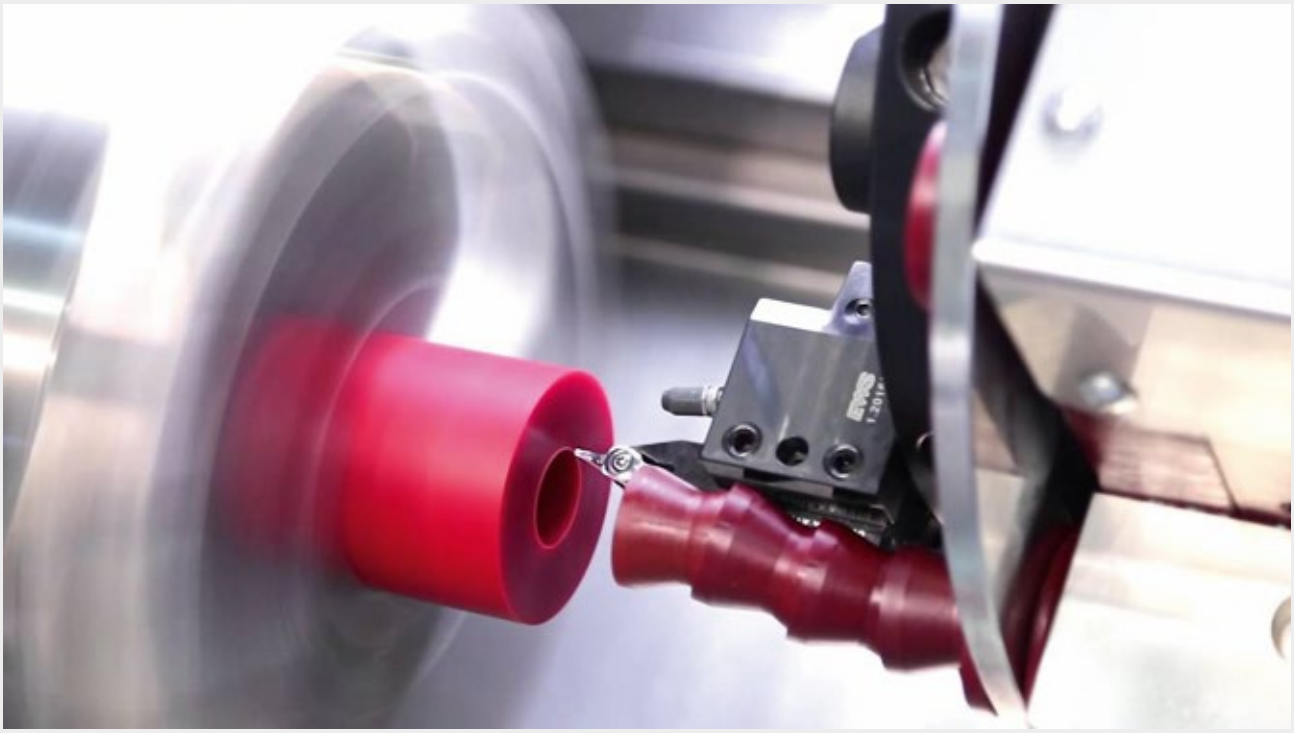
	Description	Color	Application temp.	Hardn. at 20°C	Main application
UHMW	**UHMW - PE** **S655** white		-200 to +80°C	Shore D 60 - 65	Back-up and guide rings, spring loaded seals | Mineral oils, HFC, HFD fluids, acids and diluite alkaline solutions, Sour oil and gas | Very low water absorption, excellent friction and wear properties | Applicable for contact with foodstuff
PEEK	**PEEK natural** **S665HT** beige		-50 to +250°C	-	Composite seals with elastomer preload elements, Back-up and guide rings high prescision parts | Excellent wear, friction and extrusion properties | Resistance to almost all common chemicals | Applicable for contact with foodstuff
GUIDE TAPES	**NGPT** **S675** light blue		-60 to +120°C	-	Syntetic fiber+Polyester+Ptfe. For guide rings, bushings, housings, high precision parts.
	NGPG **S680** grey		-60 to +120°C	-	Syntetic fiber+Polyester+Ptfe Graphite. For guide rings, bushings, housings, high precision parts.
	NGPB **S685** brown		-200 to +260°C	-	PTFE+Bronze at 40%. For guide rings, bushings, housings, high precision parts.



The indicated minimum application temperatures are thought as a general guideline, because a seal's function at low temperatures is dependent on the kind of the seal, the general application conditions, and on the kind of the surrounding metal parts the seal is in touch with. The indicated upper temperature limits may be exceeded, but this reduces the service life. Other materials available on request.
In case of doubt you are always welcome to contact our application engineers.

P-seals
Polymer Sealing Solutions

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