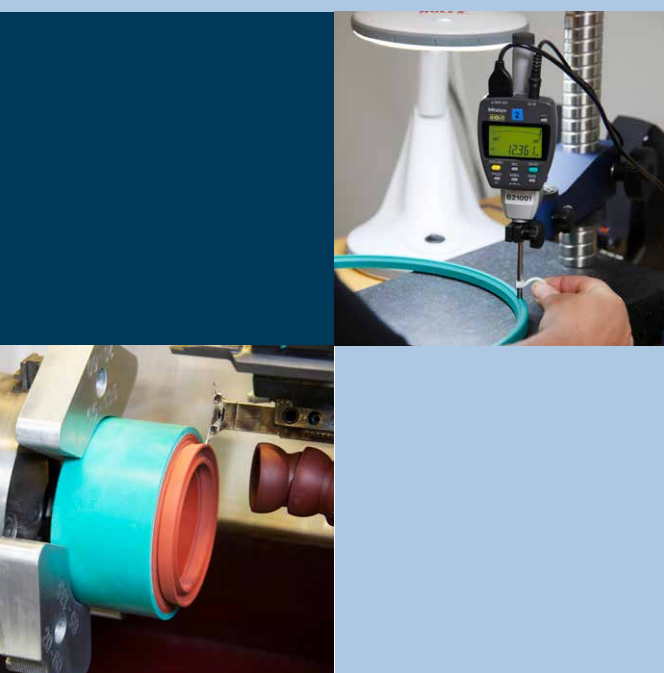


Custom made seals and gaskets



Profile range

CARSTEN HOLM A/S
SEALING SOLUTIONS
PART OF **HOLM-GROUP**



SEALING SOLUTIONS

FOR STANDARD AND SPECIAL APPLICATIONS

Carsten Holm A/S offers a huge variety of quality sealing solutions to the world's leading companies in a multitude of industries.

We also stock more than 135,000 items of standard seals and gaskets.

Carsten Holm A/S develops and produces high-quality standard and custom-made gaskets and seals, using premium materials at our modern production facilities.

Carsten Holm A/S is a family-owned company founded in 1979. Over the years we have built up comprehensive expertise, which we are pleased to convert into long-term solutions for our customers.

Commitment, experience, flexibility and fast delivery are virtues that make Carsten Holm an attractive business partner.

Table of Contents

Introduction	4
Sealing program	5



Hydraulic

Hydraulic – piston rod seals	6
Hydraulic – rod seals	7
Hydraulic – piston seals	9



Pneumatic

Pneumatic – rod seals	12
Pneumatic – piston seals	13
Wipers	13



Static

Static seals	14
Back-up rings	15



Rotary

Rotary seals	16
Guide Rings	18



Customized

Customized seals	18
Materials	19
Contact	24

EXPERTISE AND EXPERIENCE

ADD VALUE EVERY INCH OF THE WAY

As we are a well-established supplier of sealing solutions, our customers benefit from our experience and expertise. We provide standard and custom-made sealing solutions to meet our customers' demands - now and in the future.

We supply all types of gaskets and seals in any quantity for hydraulic, pneumatic, static and rotating applications.

Our range includes everything from standard NBR O-rings to complex multi-faceted food and drug certified PTFE seals.

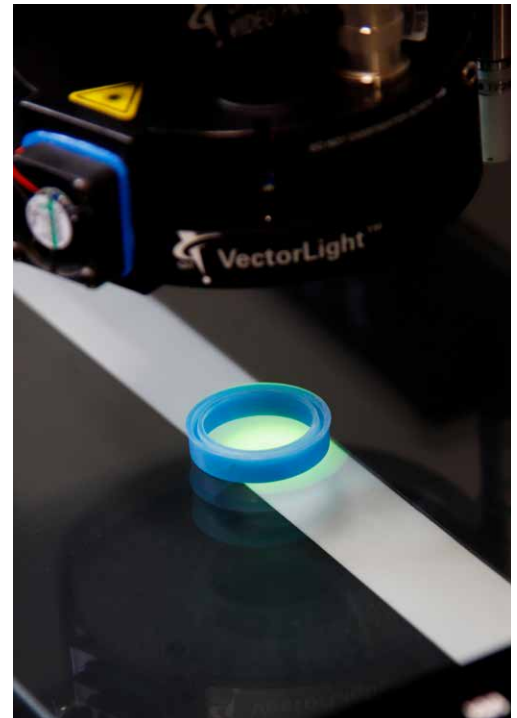
To meet almost any sealing challenge at very short notice, Carsten Holm A/S stocks a broad selection of raw materials. Our raw material stock include both standard and special compounds in sizes up to Ø580 mm. Custom-made seals in diameters up to 1,850 mm are available on request.

For detailed information about available materials and technical specifications, please see pages 19-23.

Documented quality

Quality is very important to us. We are a trustworthy partner. We use 3D optical calibration equipment to secure high-quality products and detailed documentation.

- Entrance and exit inspection
- Measuring reports
- Visual product control
- Reverse engineering
- Measuring of dimensions
- Measuring of tolerances
- Measuring of hardness





CARSTEN HOLM A/S
SEALING SOLUTIONS



= Hydraulic



= Pneumatic



= Rotary



= Customized

Type	Material	Profile	Rod Piston		Hardness	Applications	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Hydraulic – piston rod seals									
PRS06	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06A	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 	300 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06B	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06C	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06D	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS06E	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 	400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PRS07	PU/NBR				A90, 95, 96. D57, 70	 	400	-25/+100°C	0.5
PRS10SP	PU FKM POM				A90, 95, 96. D57, 70 A85 -	 	-	-30/+105°C -20/+210°C -60/+100°C	-
PRS10-12	PU/POM NBR/POM				A90, 95, 96. D57, 70 / - A80, 85, 95 / -	 	500 250	-30/+100°C -25/+100°C	0.5
PRS13-15	PU/POM NBR/POM				A90, 95, 96. D57, 70 A80, 85, 95	 	500 250	-30/+100°C -25/+100°C	0.5
PRS18	PU/NBR				A90, 95, 96. D57, 70	 	400	-25/+100°C	0.5
PRS19	PTFE/V-SPRING PTFE-FILLED/ V-SPRING				D50-55 D55-70	 	200 400	-200/+260°C	15
PRS19B	PTFE-VIRGIN/ HELICOIL SPRING PTFE-FILLED/ HELICOIL SPRING				D50-55 D55-70	 	200 400	-200/+260°C	5
PRS19C	PTFE-VIRGIN/ HELICOIL SPRING PTFE-FILLED/ HELICOIL SPRING				D50-55 D55-70	 	200 400	-200/+260°C	5
PRS19D	PTFE-VIRGIN/ HELICOIL SPRING PTFE-FILLED/ HELICOIL SPRING				D50-55 D55-70	 	200 400	-200/+260°C	5

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Hydraulic – piston rod seals								
PRS22	PU/POM NBR/POM FKM/PTFE		●	●	A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 400 160 160	-30/+100°C -25/+100°C -20/+210°C	0.5
PRS25-27	PTFE-VIRGIN PTFE-FILLED		●	●	D50-55 D55-70	 100	-200/+260°C	1.5
PRS99	PU NBR FKM		●	●	A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
Hydraulic - rod seals								
RS01	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
RS01A	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 300 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
RS01B	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
RS01C	NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 160 160	-25/+100°C -20/+210°C	1
RS02	PU/POM NBR/POM FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
RS02A	PU/POM NBR/POM FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
RS02B	PU/PTFE		●		A90, 95, 96. D57, 70 / D50-55	 700	-30/+105°C	0.5
RS02C	PU/POM		●		A90, 95, 96. D57, 70 /-	 400	-25/+100°C	5
RS03	PU/NBR		●		A90, 95, 96. D57, 70	 400	-25/+100°C	0.5
RS04	PU/NBR/POM		●		A90, 95, 96. D57, 70	 700	-25/+100°C	0.5
RS04A	PU/NBR/POM		●		A90, 95, 96. D57, 70	 700	-25/+100°C	0.5

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Hydraulic - rod seals								
RS08	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.3
RS09	PU-D57/NBR PTFE/NBR PTFE/FKM				A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
RS09A	PU-D57/NBR PTFE/NBR PTFE/FKM				A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
RS09B	PU-D57/NBR PTFE/NBR PTFE/FKM				A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
RS10-12B	PU/POM NBR/POM				A90, 95, 96. D57, 70 A80, 85, 95	 500 250	-30/+100°C -25/+100°C	0.7
RS91	PU-D57/NBR PTFE/NBR PTFE/FKM				A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
RS91B	PU-D57/NBR PTFE/NBR PTFE/FKM				A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -25/+100°C -20/+210°C	5 10 10
RS16	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 160 160	-25/+100°C -20/+210°C	0.5 0.5
RS17	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+100°C -25/+100°C -20/+210°C	0.5
RS17A	PU/POM				A90, 95, 96. D57, 70	 700	-30/+100°C	0.5
RS17B	PU/NBR				A90, 95, 96. D57, 70	 400	-25/+100°C	0.5
RS17C	PU/NBR/POM				A90, 95, 96. D57, 70	 700	-25/+100°C	0.5
RS17D	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.3
RS17E	PU/POM				A90, 95, 96. D57, 70	 700	-30/+100°C	0.3
RS19	PTFE/V-SPRING PTFE-FILLED/V-SPRING				D50-55 D55-70	 200 400	-200/+260°C -200/+260°C	15

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Hydraulic - rod seals								
RS19A	PTFE/V-SPRING PTFE-FILLED/V-SPRING				D50-55 D55-70	 150	-200/+260°C	2
RS20	NBR/POM FKM/PTFE				A80, 85, 95 / A85 / D50-55	 700 700	-25/+100°C -20/+210°C	0.5 0.5
RS31-33	PU/POM				A90, 95, 96. D57, 70	 500	-30/+100°C	0.5
RS35	PU				A90, 95, 96. D57, 70	 400	-30/+105°C	0.4
RS35A	PU				A90, 95, 96. D57, 70	 400	-30/+105°C	0.5
R50	PU/NBR/POM				A90, 95, 96. D57, 70	 700	-25/+100°C	0.5
R50A	PU/NBR/POM				A90, 95, 96. D57, 70	 700	-25/+100°C	0.5
R51	PU/NBR				A90, 95, 96. D57, 70	 400	-25/+100°C	0.5
R52	PU/POM				A90, 95, 96. D57, 70	 700	-30/+100°C	0.5
R53	PU				A90, 95, 96. D57, 70	 400	-30/+100°C	0.5
Hydraulic – piston seals								
PS01	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS01A	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 300 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS01B	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 400 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS01C	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Hydraulic – piston seals								
PS02	PU/POM NBR/POM FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 / A85 / D50-55	 700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
PS02A	PU/POM NBR/POM FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 / A85 / D50-55	 700 250 250	-30/+100°C -25/+100°C -20/+210°C	0.5
PS03	PU/NBR		●		A90, 95, 96. D57, 70	 400	-25/+100°C	0.5
PS04	PU/NBR/POM		●		A90, 95, 96. D57, 70	 700	-25/+100°C	0.5
PS04A	PU/NBR/POM		●		A90, 95, 96. D57, 70	 700	-25/+100°C	0.5
PS08	PU-D57/NBR PTFE/NBR PTFE/FKM		●		A90, 95, 98. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -20/+210°C	5 15 15
PS08A	PU/NBR PU-D57/NBR PTFE/NBR PTFE/FKM		●		A90, 95, 96. D57, 70 D57 / A80, 85, 95 D50-55 / A80, 85, 95 D50-55 / A85	 250 400 400 400	-25/+100°C -20/+210°C	1 5 15 15
PS08B	PU-D57/NBR PTFE/NBR PTFE/FKM		●		A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -20/+210°C	5 10 10
PS08C	PTFE/NBR PTFE/FKM		●		D50-55 / A80, 85, 95 D50-55 / A85	 400 400	-25/+100°C -20/+210°C	2
PS08D	PTFE/NBR PTFE/FKM		●		D50-55 / A80, 85, 95 D50-55 / A85	 400 400	-25/+100°C -20/+210°C	3
PS08E	PU-D57/NBR PTFE/NBR PTFE/FKM		●		A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -20/+210°C	5 10 10
PS08F	PU-D57/NBR PU/NBR PTFE/FKM		●		A90, 95, 96. D57, 70 D50-55 / 80, 85, 95 D50-55 / A85	 400 250 250	-25/+100°C -20/+210°C	5 1 1
PS81	PU-D57/NBR PTFE/NBR PTFE/FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 / D50-55 A85 / D50-55	 600 600 600	-25/+100°C -20/+210°C	5 10
PS81B	PU-D57/NBR PTFE/NBR PTFE/FKM		●		A90, 95, 96. D57, 70 D50-55 / A80, 85, 95 D50-55 / A85	 600 600 600	-25/+100°C -20/+210°C	5 10 10
PS81C	PU/NBR PU-D57/NBR PTFE/NBR		●		A90, 95, 96. D50-55 A90, 95, 96. D57, 70 D50-55 / A80, 85, 95	 250 400 400	-25/+100°C	1 5 15

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Hydraulic – piston seals								
PS09	PU/NBR/POM		●	A90, 95, 96. D57, 70		400	-25/+100°C	0.5
PS09A	PTFE/NBR/POM		●	D50-55 / A80, 85, 95		400	-25/+100°C	1
PS10-12B	PU/POM NBR/POM		●	A90, 95, 96. D57, 70 A80, 85, 95		500 250	-30/+100°C -25/+100°C	0.7
PS16	PU NBR FKM		●	A90, 95, 96. D57, 70 A80, 85, 95 A85		160 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS16A	PU NBR FKM		●	A90, 95, 96. D57, 70 A80, 85, 95 A85		160 160 160	-30/+105°C -25/+100°C -20/+210°C	0.5
PS17	PU/POM NBR/POM FKM/PTFE		●	A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55		400 250 250	-25/+100°C -25/+100°C -20/+210°C	0.5
PS17A	PU/POM NBR/POM FKM/PTFE		●	A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55		400 250 250	-25/+100°C -25/+100°C -20/+210°C	0.5
PS17B	PU/POM NBR/POM FKM/PTFE		●	A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55		400 250 250	-25/+100°C -25/+100°C -20/+210°C	0.5
PS19	PTFE-VIRGIN/V- SPRING PTFE-FILLED/V- SPRING		●	D50-55 D55-70		200 400	-200/+260°C	15
PS19A	PTFE-VIRGIN/V- SPRING PTFE-FILLED/V- SPRING		●	D50-55 D55-70		200 400	-200/+260°C	2
PS20	NBR/POM FKM/PTFE		●	A80, 85, 95 A85 / D50-55		700 700	-25/+100°C -20/+210°C	0.5
PS23	PU/NBR/POM		●	A90, 95, 96. D57, 70		400	-25/+100°C	0.5
PS35	PU		●	A90, 95, 96. D57, 70		400	-30/+105°C	0.4
PS35A	PU		●	A90, 95, 96. D57, 70		400	-30/+105°C	0.4
P50	PU/POM		●	A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-30/+100°C	0.5 0.2

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
------	----------	---------	-----	--------	----------	--------------	----------------------	-----------------------

Hydraulic – piston seals

P50A	PU/POM		●		A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-30/+100°C	0.5 0.2
P51	PU/NBR/POM		●		A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P51A	PU/NBR/POM		●		A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P51G	PU/NBR/POM		●		A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P52	PU/POM		●		A90, 95, 96. D57, 70		700 DYNAMIC 1500 STATIC***	-30/+100°C	0.5 0.2
P53	PU/NBR/POM		●		A90, 95, 96. D57, 70		700 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P54	PU/NBR/POM		●		A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P54A	PU/NBR/POM		●		A90, 95, 96. D57, 70		400 DYNAMIC 1500 STATIC***	-25/+100°C	0.5 0.2
P55	PU/POM NBR/POM		●		A90, 95, 96. D57, 70 A80, 85, 95		700 DYNAMIC/ 1500 STATIC*** 400 DYNAMIC/ 1500 STATIC***	-25/+100°C	0.5 0.2
P58	PU		●		A90, 95, 96. D57, 70		400	-30/+100°C	0.3

Pneumatic - rod seals

RS05	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85		25	-30/+105°C -25/+100°C -20/+210°C	1
RS05A	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85		25	-30/+105°C -25/+100°C -20/+210°C	1

Pneumatic – piston seals

PS05	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85		25	-30/+105°C -25/+100°C -20/+210°C	1
-------------	------------------	--	---	--	--	--	----	--	---

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Pneumatic – piston seals								
PS05A	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	25	-30/+105°C -25/+100°C -20/+210°C	1
Wipers								
WR01	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR01A	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR02	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR02A	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR02B	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR02C	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR02D	PU PU-D57				A90, 95, 96. D57, 70 A90, 95, 96. D57, 70	-	-30/+105°C	4
WR03	PU/POM** NBR/POM**				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR04	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR07	POM PA PU-D57				- A90, 95, 96. D57, 70	-	-50/+80°C -50/+80°C -30/+105°C	1
WR08	POM PA PU-D57				- D57, 70	-	-50/+80°C -50/+80°C -30/+105°C	1
WR11	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4
WR12	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	-	-30/+105°C -25/+100°C	4

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)	
Wipers									
WR13	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / 85	   	15	-25/+100°C -20/+210°C	10
WR13_E2	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	15	-25/+100°C -20/+210°C	10
WR14	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	15	-25/+100°C -20/+210°C	10
WR15	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	15	-25/+100°C -20/+210°C	10
WR16	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	15	-25/+100°C -20/+210°C	10
WR17	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	   	-	-30/+105°C -25/+100°C	4
WR18	PU NBR				A90, 95, 96. D57, 70 A80, 85, 95	   	-	-30/+105°C -25/+100°C	4
W50	PU				A90, 95, 96. D57, 70 A80, 85, 95	   	-	-30/+105°C	2
W51	PU				A90, 95, 96. D57, 70 A80, 85, 95	   	-	-30/+105°C	2
W53	PU/POM**				A90, 95, 96. D57, 70	   	-	-30/+100°C	2
W54	PU				A90, 95, 96. D57, 70	   	-	-30/+105°C	2
Static seals									
FL01A	PU FKM EPDM				A90, 95, 96. D57, 70 A85 A85	   	400 250 250	-30/+105°C -20/+210°C -50/+130°C	-
FL02B	PU FKM EPDM				A90, 95, 96. D57, 70 A85 A85	   	400 250 250	-30/+105°C -20/+210°C -50/+130°C	-
FL03	PU NBR FKM				A90, 95, 96. D57, 70 A85 A85	   	600 250 250	-30/+105°C -25/+100°C -20/+210°C	-

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Static seals								
FL06	PTFE/HELICOIL SPRING PTFE-FILLED/ HELICOIL SPRING				D50-55 D55-70	 200 400	-60/+200°C	0.1
FL07	PTFE/HELICOIL SPRING PTFE-FILLED/ HELICOIL SPRING				D50-55 D55-70	 200 400	-60/+200°C	0.1
FL08	PTFE/HELICOIL SPRING PTFE-FILLED/ HELICOIL SPRING				D50-55 D55-70	 200 400	-60/+200°C	0.1
OR	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
ORH	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
ORV	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
QR01	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
QR02	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105°C -25/+100°C -20/+210°C	-
FL35A	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105 C -25/+100 C -20/+210 C	-
FL35B	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 160 160	-30/+105 C -25/+100 C -20/+210 C	-
SS01	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	 600 250 250	-30/+105°C -25/+100°C -20/+210°C	-
Back-up rings								
BUR08	PU POM PTFE				A90, 95, 96. D57, 70 - D50-55	 -	-30/+105°C -60/+100°C -200/+260°C	-
BUR09	PU POM PTFE				A90, 95, 96. D57, 70 - D50-55	 -	-30/+105°C -60/+100°C -200/+260°C	-
BUR10	PU POM PTFE				A90, 95, 96. D57, 70 - D50-55	 -	-30/+105°C -60/+100°C -200/+260°C	-

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Back-up rings								
BUR11	PU POM PTFE		●	●	A90, 95, 96. D57, 70 - D50-55	 	- -30/+105°C -60/+100°C -200/+260°C	-
BUR12	PU POM PTFE		●	●	A90, 95, 96. D57, 70 - D50-55	 	- -30/+105°C -60/+100°C -200/+260°C	-
BUR13	PU POM PTFE		●	●	A90, 95, 96. D57, 70 - D50-55	 	- -30/+105°C -60/+100°C -200/+260°C	-
Rotary seals								
OS01	PU/POM** NBR/POM** FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 0.5 0.5 0.5	-30/+100°C -25/+100°C -20/+210°C	5 10 15
OS01A	PU/POM** NBR/POM** FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 0.5 0.5 0.5	-30/+100°C -25/+100°C -20/+210°C	5 10 15
OS02	PU/POM** NBR/POM** FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 0.5 0.5 0.5	-30/+100°C -25/+100°C -20/+210°C	5 10 15
OS02A	PU/POM** NBR/POM** FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 0.5 0.5 0.5	-30/+100°C -25/+100°C -20/+210°C	5 10 15
OS03	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 0.5 0.5 0.5	-30/+100°C -25/+100°C -20/+210°C	5 10 15
OS03A	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 0.5 0.5 0.5	-30/+100°C -25/+100°C -20/+210°C	5 10 15
OS08	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 -	-30/+105°C -25/+100°C -20/+210°C	5 10 10
OS08A	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 -	-30/+105°C -25/+100°C -20/+210°C	5 10 10
R03	PU/POM NBR/POM FKM/PTFE		●		A90, 95, 96. D57, 70 A80, 85, 95 A85 / D50-55	 400 250 250	-30/+100°C -25/+100°C -20/+210°C	0.2 0.2 0.2
R04	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 160 100 100	-30/+100°C -25/+100°C -20/+210°C	0.2 0.2 0.2
R04A	PU NBR FKM		●		A90, 95, 96. D57, 70 A80, 85, 95 A85	 160 100 100	-30/+105°C -25/+100°C -20/+210°C	0.2 0.2 0.2

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



= Hydraulic



= Pneumatic



= Rotary



= Customized

SEALING PROGRAM

Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
Rotary seals								
R05	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	   	160 100 100	-30/+105°C -25/+100°C -20/+210°C 0.2 0.2 0.2
R05A	PU NBR FKM				A90, 95, 96. D57, 70 A80, 85, 95 A85	   	160 100 100	-30/+105°C -25/+100°C -20/+210°C 0.2 0.2 0.2
VR06	NBR FKM				A80, 85, 95 A85	   	-	-25/+100°C -20/+210°C 25 25
VR07	NBR FKM				A80, 85, 95 A85	   	-	-25/+100°C -20/+210°C 25 25
R08	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R08D	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R09	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R09A	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R10	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 / D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R10A	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R11	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
R11D	PTFE/NBR PTFE/FKM				D50-55 / A80, 85, 95 D50-55 / A85	   	350 350	-25/+100°C -20/+210°C 0.4 0.4
RS19A	PTFE/V-SPRING				D50-55	   	150	-200/+260°C 2
PS19A	PTFE/V-SPRING				D50-55	   	150	-200/+260°C 2
R35A (inside pressure)	PU NBR FKM				A90,95,96. D57, 70 A80, 85, 95 A85	   	160 100 100	-30/+105 C -25/+100 C -20/+210 C - - -

** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



Type	Material	Profile	Rod	Piston	Hardness	Pressure bar	Temperature range °C	Sliding speed (m/sec)
------	----------	---------	-----	--------	----------	--------------	----------------------	-----------------------

Rotary seals

R35B
(outside pressure)PU
NBR
FKMA90, 95, 96, D57, 70
A80, 85, 95
A85160
100
100-30/+105 C
-25/+100 C
-20/+210 C-
-
-

Guide Rings

BWR01

POM
PTFE
POLYESTER-
FABRIC-
D50-55
-

-

-60/+100°C
-200/+260°C
-40/+130°C

4

BWR01A

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR03

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR04

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR05

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR06

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR07

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR08

POM
PTFE-
D50-55

-

-60/+100°C
-200/+260°C

4

BWR09

POM
PTFE-
D50-55

-

-60/+100 C
-200/+260 C

-

Customized seals



** 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 of the profile design.

The above data are maximum values and cannot be combined. Data provided are based on standard test under laboratory conditions and given as a guide only. Carsten Holm A/S are not reliable for typographical errors, or for any damage or injury resulting from use of the products.



MATERIALS

CARSTEN HOLM A/S
SEALING SOLUTIONS

Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
Polyurethane					
CH U500-R95	PU FDA	Red	Shore A 95 ± 2	-30/+125°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oil, HFA and HFB fluids, water, sea water, diluted acids and leaches Improved thermal and chemical resistance, excellent wear resistance and low friction Applicable for contact with foodstuff EU1935/2004 EU10/2011 FDA, 3A, ADI
CH U510-G88	PU	Green	Shore A 90 ± 2	-30/+115°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water, diluted acids and leaches Application for pneumatic and low pressure
CH U520-OR95-HT	PU	Orange	Shore A 96 ± 2	-30/+135°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water, diluted acids and leaches Application at elevated temperature
CH U530-B95-LT	PU FDA	Light Blue	Shore A 95 ± 2	-50/+105°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water EU Applications for low temperature EU1935/2004 EU10/2011 FDA, 3A, ADI
CH U535-B95	PU FDA	Blue	Shore A95 ±2	-30/+125 C	Static and dynamic applications, primarily used for U-cut seals, wipers and chevron packings, particularly suitable for food contact applications. Hydraulic liquids, oil-in-water emulsions, water power and mining applications, as well as presses. EU1935/2004, EU10/2011 FDA, 3A, GB4806.7, ADI
CH U540-VI95-CR	PU FDA	Violet	Shore A 95 ± 2	-30/+115°C	Lip seals, wiper rings, chevron 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 EU1935/2004 EU10/2011 FDA, 3A, ADI
CH U550-GM95	PU	Dark red	Shore A 95 ± 2	-30/+125°C	Lip seals, wiper rings, chevron packings and other seal elements Mineral oils, HFA, HFB fluids, water, sea water Improved wear and friction properties for water hydraulics and heavy duty Applications with insufficient lubrication
CH U570-D57	PU FDA	Blue	Shore D 57 ± 3	-30/+125°C	Back-up rings, guide rings with preload element Mineral oils, HFA, HFB fluids, water, sea water High pressure and extrusion resistance EU1935/2004 EU10/2011 FDA, 3A, ADI
CH U580-D57-G	PU	Grey	Shore D 57 ± 3	-30/+125°C	Back-up rings or composite seals with preload element Mineral oils, HFA, HFB fluids, water, sea water High pressure and extrusion resistance Improved wear and friction properties
CH70 D	PU	Beige	Shore D 70 ± 3	-20/+100°C	Back-up rings, High pressure seals

NBR

CH107-B85	NBR	Black	Shore A 85 ± 5	-25/+100°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water
CH109-B95	NBR	Black	Shore A 95 ± 5	-25/+100°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water
CH111-W85	NBR FDA	White	Shore A 85 ± 5	-22/+100°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water Applications for contact with foodstuff EU1935/2004 EU10/2011 FDA, 3A, ADI
CH 311	NBR FDA	Blue	Shore A85 ± 5	-30/+100°C	Static and dynamic seals (standard and special), wipers, O-rings, flange seals, rotary seals, rubber energizers (preload elements). General applications in petroleum fluids, water, greases, mineral oils. FDA 21 CFR 177.2600 - (EC) No 1935/2004 – Metal detectable fillers.
CH T-NBR	NBR	Black	Shore A 80 ± 5	-50/+110°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFA, HFB, HFC fluids, cold water Applications at low temperature
CH307 NBR73	NBR	Black	Shore A 75	-30/+90 C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils

The above data are maximum values and cannot be combined. Data provided are based on standard tests under laboratory conditions and given as a guide only.

Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
H-NBR					
CH112-B85	H-NBR	Black	Shore A 85 ± 5	-25/+150°C	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
CH900-B85-RGD	H-NBR RGD	Black	Shore A 85 ± 5	-20/+150°C	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 Meets the NORSOK M-710 requirements
CH901-B85-RGD	H-NBR RGD LT	Black	Shore A 85 ± 5	-40/+150°C	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
FKM					
CH109-BR85	FKM	Brown	Shore A 85 ± 5	-20/+210°C	Lip seals, wiper rings, vee packings, oil seals at high speed and other seal elements Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas
CH110-BR85	FKM FDA	Brown	Shore A 85 ± 5	-20/+210°C	Lip seals, wiper rings. Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas Applicable for contact with foodstuff EU1935/2004 EU10/2011 FDA, 3A, ADI
CH111-B85	FKM	Black	Shore A 85 ± 5	-25/+210°C	Lip seals, wiper rings, vee packings, oil seals at high speed and other seal elements Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas
CH359	FKM FDA	Blue	Shore A80 +-5	-30/+200C	Lip seals, wiper rings, vee packing, oil seals at high speed and other seal elements. Minerals oils, HFD fluids at high temperature. Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, and sour gas. Application for contact with foodstuff. FDA, EU1935/2004, EU2023/2006 Metal detectable
CH800-B85-RGD	FKM RGD	Black	Shore A 85 ± 5	-30/+210°C	Lip seals, wiper rings, vee packings and other seal elements Mineral oils, HFD fluids at high temperature Very resistant to almost all common chemicals and phosphates and chlorinated hydrocarbons, crude and sour gas RGD (ED) optimized for use in Oil & Gas Industry Meets the NORSOK M-710 requirements
EPDM					
CHE131-B85	EPDM	Black	Shore A 85 ± 5	-50/+130°C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil
CHE132-W85	EPDM FDA	White	Shore A 85 ± 3	-50/+100°C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil Application for contact with foodstuff EU1935/2004 EU10/2011 FDA, 3A, ADI
CHE134-B85	EPDM KTW FDA	Black	Shore A 85 ± 5	-45/+120°C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil Application for use in drinking water EU1935/2004 EU10/2011 FDA, 3A, ADI
CH338	EPDM FDA	Blue	Shore A 81 +-5	-30/+130C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil Application for contact with foodstuff FDA, EU1935/2004, EU2023/2006
CH339	EPDM FDA	Blue	Shore A 81 +-5	-40/+135C	Lip seals, vee packings and other seal elements Hot water and steam, ozone, dilute acids and alkaline solutions EPDM is NOT resistant to mineral oil Application for contact with foodstuff FDA, EU1935/2004, EU2023/2006 Metal detectable

The above data are maximum values and cannot be combined. Data provided are based on standard tests under laboratory conditions and given as a guide only.

Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
Silicone					
CH102-R85	VMQ FDA	Red	Shore A 85 ± 5	-55/+210°C	Flange seals, gaskets and other static seals Mineral oils, HFA, HFB, HFC, HFD fluids, ozone Not recommended for dynamic applications Application for contact with foodstuff EU1935/2004 EU10/2011 FDA, 3A, ADI
CH103-BL85	VMQ FDA	Blue	Shore A 85 ± 3	-55/+180°C	Flange seals, gaskets and other static seals Mineral oils, HFA, HFB, HFC, HFD fluids Not recommended for dynamic applications Application for contact with foodstuff EU1935/2004 EU10/2011 FDA, 3A, ADI
Aflas					
CH101-B85	TFE/P	Black	Shore A 85 ± 5	-15/+210°C	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
PTFE					
CH400	PTFE VIRGIN FDA	White	Shore D 50-55	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals and fluids except molten alkaline metals Application for contact with foodstuff FDA, USP, EU1935/2004, EU2023/2006 EU10/2011
CH412	PTFE WITH 15% GRAPHITE	Black	Shore D 55-60	-200/+260°C	Composite seals with elastomer preload elements, springloaded seals, back-up and guide rings Resistant to almost all common chemicals High resistance to deformation, extremely low coefficient of friction
CH416	PTFE WITH 40% BRONZE	Brown	Shore D 60-65	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals and fluids except molten alkaline metals Filled with 40% bronze for improved wear, pressure and extrusion resistance
CH418	PTFE WITH 15% GLASS FIBER	Grey	Shore D 55-60	-200/+260°C	Composite seals with elastomer preload elements, springloaded seals, back-up and guide rings Resistant to almost all common chemicals and fluids except molten alkaline metals Glass fiber reinforced for improved wear and extrusion resistance
CH440	PTFE WITH PIGMENT TURQUOISE	Turquoise	Shore D 55	-200/+260°C	Composite seals with elastomer preload elements, springloaded seals, back-up and guide rings Very good sliding properties, low friction
CH453	PTFE WITH 25% CARBON GRAPHITE	Black	Shore D 62-67	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Suitable for wet operating conditions and for contact with corrosive agents
CH455	PTFE WITH 35% CARBON GRAPHITE	Black	Shore D 62-67	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Suitable for wet operating conditions and for contact with corrosive agents
CH458	PTFE WITH 60% BRONZE	Brown	Shore D 65-70	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Filled with 60% bronze for improved wear, pressure and extrusion resistance
CH477	PTFE WITH 10% CARBON FIBER	Brown	Shore D 65-70	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Resistant to almost all common chemicals Filled with 10% carbon fibre for improved wear, pressure and extrusion resistance

The above data are maximum values and cannot be combined. Data provided are based on standard tests under laboratory conditions and given as a guide only.

Material List	Material	Colour	Hardness At 20°C	Temperature Range °C	Main Application
PTFE					
CH479	PTFE WITH 10 % LCP	Beige	Shore D 55	-200/+260°C	Composite seals with elastomer preload elements, spring-loaded seals, back-up and guide rings Extremely good chemical resistance Particularly suitable for operating against aluminium, stainless steel, bronze and polymeric substrates Very low friction coefficient Application for contact with foodstuff FDA, EU1935/2004, EU2023/2006 EU10/2011
Plastic*					
CH101-WE	POM FDA	White	-	-50/+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
CH112	PA FDA	Natural	-	-30/+100°C	Back-up and guide rings, machined parts Mineral oils, acids and dilute alkaline solutions Application for contact with foodstuff
CHPEEK	PEEK FDA	Natural		-50/+260°C	Composite seals with elastomer preload elements, back-up and guide rings, high precision parts Excellent wear, friction and extrusion properties Resistant to almost all common chemicals Application for contact with foodstuff FDA, EU1935/2004 EU 2023/2006, EU 10/2011
CHPEEK CF30	PEEK WITH 30% CARBON FIBRES	Black	-	-50/+260°C	Composite seals with elastomer preload elements, back-up and guide rings, high precision parts. Excellent wear, friction and extrusion properties. Resistant to almost all common chemicals
CHPEHD 1000	PEHD 1000 FDA	White	Shore D 60	-200/+80°C	Piston / Rod seals with spring or elastomere energizer, back-up rings, special seals in water hydraulics and similar applications, low temperature applications, low friction applications. CH PEDH1000 or UHMW-PE (ultra high molecular weight Polyethylene) has excellent service temperature and the material is optimal for low temperature applications. FDA approved for use in applications in contact with foodstuff. Back-up and guide rings, machined parts with tight tolerances, mineral oil FDA, EU1935/2004, EU2023/2006, EU10/2011
Composite					
CH1210	COTTON FABRIC- REINFORCED PHENOLIC COMPOSITE	Brown	105 HRM	-40/+130°C	Composite seals, Bushes and Spherical Bearings Good mechanical strength and chemical resistance
CH1220	SYNTHETIC FIBRE- REINFORCED POLYESTER COMPOSITE WITH FRICTION MODIFIER	Grey	98 HRM	-40/+120°C	Composite seals, Bushes and Spherical Bearings High wear resistance Self-lubricating and non magnetic
CH1240	SYNTHETIC FIBRE- REINFORCED POLYESTER COMPOSITE WITH PTFE MICRO-POWDER ADDITIONS	Turquoise	98 HRM	-40/+120°C	Composite seals, Bushes and Spherical Bearings Low coefficient of friction and non magnetic Low water uptake
CH1320	WOVEN ARAMID FABRIC- REINFORCED PHENOLIC COMPOSITE WITH GRAPHITE ADDITIONS	Black	115 HRM	-40/+200°C	Composite seals, Bushes and Spherical Bearings Suitable for high temperature applications and excellent impact resistance

* Note: We can also produce seals in other plastics, including PI, PAI, PEI, etc.

The above data are maximum values and cannot be combined. Data provided are based on standard tests under laboratory conditions and given as a guide only.

INTERNATIONAL TRACK RECORD

Over the years, Carsten Holm A/S has developed and supplied standard and customised sealing solutions for industrial applications across the world.

We know our market well and strive constantly to improve so that we can continue to meet changing customer needs. We have a solid background of experience with sealing applications in the following industries.



- Metalworking Industry
- Energy Industry
- Transport and Shipping Industry
- Food and Beverage Industry
- Pharmaceutical Industry
- Agriculture and Forestry Industry
- Mining Industry

We are always ready to assist you in supplying the best possible sealing solution for your company. Please do not hesitate to contact us.

CARSTEN HOLM A/S
SEALING SOLUTIONS

PART OF HOLM-GROUP

Kielbergvej 16
DK-5750 Ringe

T +45 62 62 52 55
F +45 62 62 52 45
E holm@carstenholm.dk
W carstenholm.dk