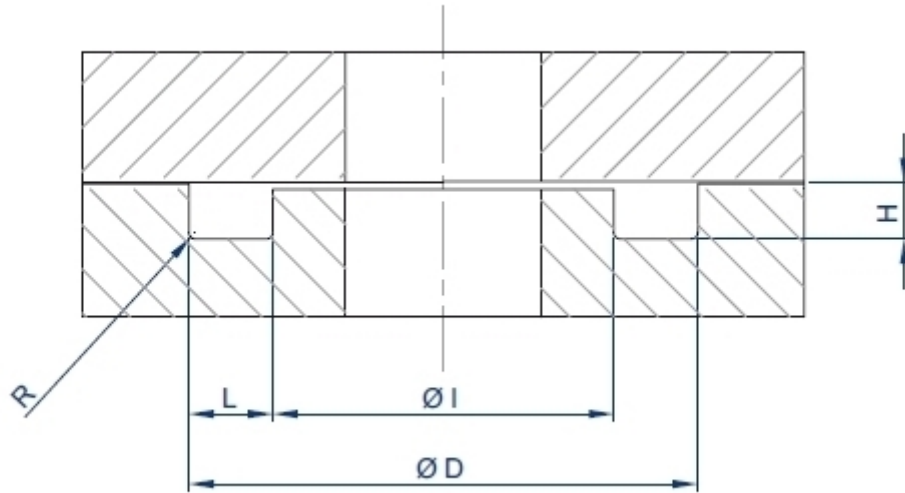


## Enerseal® Spring Energized Seals | Face seals Enerseal® internal pressure



**Spring Energized Seals Enerseal®**, custom and standard dimensions available. Jacket in PTFE compound, PEEK, UHMW-PE, PU 54Sh.D. Jackets and electro-welded springs are designed and realized within the company, so that HD has the complete control of the production process. Spring are available in Aisi302, Elgiloy, Hastelloy and **NACE approved Inconel X750**.  
**For the "V" shaped cross sections up a max. D diameter of 250, an optional EU-FDA approved silicone filling is available.**

[Spring Energized Seals Homepage](#)



## AVAILABILITY

**To check the availability:**

- choose profile and compound from the drop-down menu
  - input the desired housing class
  - input the desired diameter
- Once obtained the availability, a request for quotation can be sent.



## MATERIALS

Click compound's code to download the .PDF data sheet (login requested)

HD Slippers code	Composition	Color	Approvals	$\Delta T$ °C	Description
<a href="#">N-009</a>	Ptfe-oxides	blue	FDA	-268 +260	All pourpose on soft surfaces
<a href="#">N-095</a>	Tfm	white		-268 +260	Low creep, better strength.
<a href="#">N-031</a>	Ptfe-bronze	green-blue		-268 +260	High wear resistance, hidraulic seals
<a href="#">N-032</a>	Ptfe-carbon	black	NORSOK	-268 +260	High wear resistance, pneumatic and hydraulic seals
<a href="#">N-197</a>	Ptfe-carbographite	black		-268 +260	High wear resistance, hydraulic and pneumatic seals
<a href="#">N-043</a>	Ptfe-graphite	black		-268 +260	High wear resistance, low friction coefficient.
<a href="#">N-060</a>	Ptfe-glass fibre	blue	FDA	-268 +260	All pourpose on hard surfaces
<a href="#">N-067</a>	Ptfe-glass fibre	white	FDA NORSOK	-268 +260	High wear and creep resistance
<a href="#">N-033</a>	Ptfe-glass fibre MoS2	gray	FDA	-268 +260	Fit for hard surfaces
<a href="#">N-103</a>	Ptfe-Carbon fibre	black		-268 +260	Fit for hard surfaces
<a href="#">N-102</a>	Ptfe-Liquid crystal polymer	beige	FDA - EU	-268 +260	Food & Pharma, fit for soft surfaces
<a href="#">N-088</a>	Ptfe-polyimide	yellow		-268 +260	Fit for soft surfaces
<a href="#">N-074</a>	PEHMW	white	FDA	-140 +80	High wear and extrusion resistance
<a href="#">N-155</a>	PVDF	white	FDA	-30 +140	High modulus
<a href="#">P95-A252</a>	Polyurethane	blue	FDA	-50 +105	Extrusion and wear withstanding, low friction coefficient
<a href="#">P95-VI251</a>	Polyurethane	violet	FDA	-30 +115	CIP (clean in place) fluids compatible
<a href="#">P95-R198</a>	Polyurethane	red		-30 +125	Extrusion and wear withstanding, low friction coefficient, high temperatures
<a href="#">P95-AR255</a>	Polyurethane	orange		-30 +135	Extrusion and wear withstanding, low friction coefficient, higher temperatures
<a href="#">P95-G253</a>	Polyurethane MoS	gray		-30 +105	Extrusion and wear withstanding, lower friction coefficient

### CHOOSING Neuflon-ptfe compound ACCORDING WITH FLUID AND SURFACE

#### SURFACES

Steel HEC>=30-45  
Temp. Mart. Inox Steel  
Cast Iron HRB<=200  
Steel HRC>=45  
Cast Iron HRB>200

Galvanic or chemical  
surfacing HV>=700  
Chromium Bronze

Bronze  
Brass

Treated Aluminium

Aust. Inox Steel  
Glass

#### FLUIDS

#### NEUFロン-ptfe compounds (standard in bold)

Hydraulic oil  
Transmission oil  
Fire resistant syntetic  
hydraulic oil

**N-031**  
N-032 N-060 P95-A112

**N-031**  
N-032 N-060 P95-A112

**N-009**  
N-043 N-032 P95-A112

**N-032** N-074  
P95-A112

**N-009**  
N-032 N-074 P95-A112

Water and oil/water  
emulsions

**N-032**  
N-060 N-074

**N-032**  
N-060 N-074

**N-009**  
N-043 N-074

**N-032**  
N-074

**N-009**  
N-032 N-074

Drugs and food

**N-074**  
N-102 N-043 N-060 N-095  
P95-B113

**N-009**  
N-074 P95-B113

**N-102**  
N-009 P95-B113

**N-009**  
N-074 P95-B113

**N-009**  
N-074 P95-B113

Air

**N-032**

**N-032**

**N-032**

**N-032**

**N-032**



	N-031 N-043 N-074 P95-A112	N-043 P95-A112	N-009 N-043 N-074 P95-A112	N-074 P95-A112	N-009 N-043 N-074 P95-A112
Steam	<b>N-032</b> N-043	<b>N-032</b>	<b>N-009</b> N-032 N-043		<b>N-032</b> N-009 N-043
Acids and Bases	<b>N-032</b> N-074	<b>N-032</b> N-043 N-074			<b>N-009</b> N-032 N-043 N-074



## SEAT

housing class	D dimensional range	I inner diameter	H groove depth	L standard	L* reinforced heel	R max.
internal pressure	H8		H8		H12	
GI	20 - 50	<b>D - 2L</b>	1,45	2,4	3,8	0,4
LI	20 - 240		2,25	3,6	4,65	0,4
HI	25 - 400		3,1	4,8	5,7	0,6
NI	45 - 650		4,7	7,1	8,5	0,8
MI	80 - 1200		6,1	9,5	11,2	0,8
RI	150 - 1200		9,5	13,4	15,8	0,8

\*Always choose reinforced heel when pressure exceeds 200 bar

### Coding example

housing class NI  
 profile code 064  
 diameter D= 80  
 materials: jacket Neuflon 020 spring Aisi 314

**Enerseal NI - 064 - 80 - N-020 - 314**



## FINISHES

SURFACE FINISH ACCORDING WITH FLUID		
application	max Ra $\mu\text{m}$ dynamic surface	max Ra $\mu\text{m}$ static surface
CRYOGENICS	0,1	0,2
FREON HELIUM HYDROGEN	0,2	0,3
AIR NITROGEN ARGON METHANE FUELS	0.2	0.4
WATER OIL	0.3 - 04	0.6
ROTARY SEALS		
<b>Shaft surface</b> Ra 0.2 - 0.3 micron max. Rz 1.0 - 2.5 micron max. R max. < 4 micron	<b>Shaft hardness</b> 55 HRC min. for pressure up to 5 bar 60 HRC min. for pressure > di 5 bar 60 HRC for speed > 4m/sec	<b>Surface treating deep</b> 0.3 mm min.