



COMPLEMENTARY PRODUCTS & SERVICES

We make it *possible*

1 – SURFACE TREATMENTS

1.1 – Improved surface efficiency

Hutchinson offers a wide range of high-performance surface treatments. These treatments optimise the seal's surface by adapting it to the required conditions of use. They are tested and validated according to standards and to customers requirements.






We develop and apply all our treatments in our plants using specific processes, thus guaranteeing optimal quality.

Our processes respect the environment, the regulations in force and preserve the properties of the rubber.



Benefits

- Reduce insertion forces
- Reduce friction forces and seal wear for dynamic applications
- Enable distinction between two identical seals (Poka-Yoke)
- Facilitate use in automatic feeding O-Ring distribution systems

-  Marking
-  Powders
-  Wet films
-  Dry coatings
-  Chemical treatments

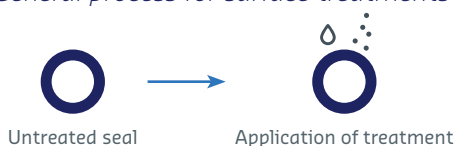
1.2 – Surface Treatment process

To guarantee optimum quality, the application of surface treatments is always carried out in our plants and follows specific processes:

Specific process for Lubricoats









General process for surface treatments



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1.3 – Our surface treatments

Designation	Colour	Aspect	Compatibility with elastomer families	Ease of assembly <i>Non-persistent product</i>	Ease of assembly <i>Persistent product</i>	Ease of automated fitting	Dynamic applications	Colour identification
 Marking (On a side or line on external diameter)	white, blue, yellow, orange, red, green	-	all except silicone	-	-	-	-	++
 Talcum	white	mat	all	o	-	++	-	-
 Molycotting	silver	very shiny	all	o	-	++	-	-
Lubrifiilm SG	transparent	non-oily grease	AEM, EPDM, FKM, FVMQ, HNBR, NBR	++	-	-	-	-
Lubrifiilm FP	transparent	greasy, slightly shiny	AEM, EPDM, FKM, FVMQ, HNBR, NBR	++	-	o	-	-
 Lubrifiilm FP-ST	transparent	greasy, very shiny	all except silicone	++	-	-	-	-
Silicone HF	transparent	greasy, very shiny	all except silicone	++	-	-	-	-
Silicone GE	transparent	greasy, very shiny	all except silicone	++	-	-	-	-
Lubriccoat A WB3-N	blue, black, orange, green	dry	AEM, EPDM, FKM, HNBR, NBR	-	++	+	+	++
Lubriccoat H	blue, orange, transparent	dry	ACM, AEM, FKM, HNBR, NBR	-	o	+	++	++
 Lubriccoat I	blue, orange, transparent (slightly milky)	dry	EPDM, FKM, HNBR, NBR	-	+	+	-	++
Lubriccoat J	white, blue, orange, red, transparent, green	dry	AEM, EPDM, FKM, HNBR, NBR	-	-	++	-	++
Lubriccoat KT	transparent	dry	AEM, EPDM, FKM, HNBR, NBR	-	++	+	-	-
 Lubri PB	transparent	dry	mainly NBR	-	o	+	++	-

NOTE: The Silicone HF and Lubriccoat I (transparent version) treatments are approved for drinking water.

Key

- Not recommended
- o Quite suitable
- + Suitable
- ++ Highly suitable

2 – MECHANICAL CLEANLINESS

2.1 – Interest

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For many years, Hutchinson has been aware of the requirements for special cleanliness in many fields, such as the automotive market, and has equipped itself with many resources and skills to meet customers' technical specifications.

The absence of particulate pollution in a circuit is recognised as a key factor, essential to the lifespan and reliability of the circuit. The presence of particles, in particular mechanical particles, from the manufacturing process leads to a substantial increase in the wear of the system during initial use and can cause irreversible failures such as sealing problems.

Our production process does not generate abrasive and/or metallic particles, but Hutchinson offers efficient cleaning solutions for its parts.



2.2 – Cleanliness levels

To meet customers requirements, Hutchinson has defined four levels of cleanliness corresponding to specific washing and packaging processes:

- Standard
- Intermediate
- Stringent
- Very stringent

The cleanliness expertise unit analyses the specifications for each need, to establish the appropriate washing and packaging process.

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2.3 – Means of production

Washing is carried out using environmentally friendly machines that guarantee the integrity of the seals.

For stringent and very stringent cleanliness, the washing and packaging operations are carried out in an ISO 7 clean room (according to ISO 14644-1).



2.4 – Test facilities

Hutchinson has specific equipment to enable:

- the extraction of particle contamination from the parts,
- gravimetric measurement (mass of pollutant),
- the quantitative and qualitative measurement of particles

in compliance with the international reference standards, ISO 16232-2018 and VDA19.1.



ISO 7 class					
Maximum allowable concentrations (particles per m ³ of air) of particles of size equal to or greater than that given below					
≥0.10μ	≥0.20μ	≥0.30μ	≥0.50μ	≥10μ	≥50μ
-	-	-	352,000	83,200	2,930

3 – TRACEABILITY BY MICRO-ENGRAVING

Micro-engraving keeps traceability information directly on the seals.

A simple search of the engraved identification code on the *O-Ring Info* smartphone app enables to access following traceability information:

- Part code number
- Part dimensions
- Rubber compound
- Date of manufacture
- Hutchinson guarantee of origin

O-RING INFO



DETECTION OF COUNTERFEITING

TRACEABILITY

GUARANTEE OF ORIGIN

UNIT IDENTIFICATION

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4 – URGENT ORDERS

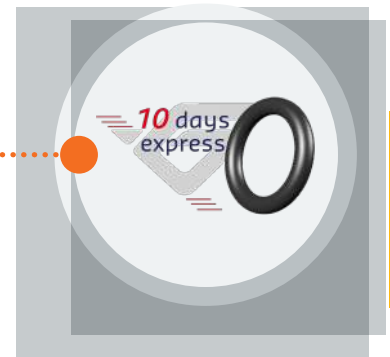
4.1 – 10 Days Express

The 10 Days Express service allows delivery in under 10 days, including production and delivery, while maintaining our standard level of service: control, certificate of conformity, etc.

This concerns:

- All our compounds
- All dimensions
- All processes
- Order quantity up to 7,000 parts per reference, depending on compound and dimensions
- Other possible specifications (cleanliness, packaging, etc.)

10 Days express
10 days



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COMPLEMENTARY PRODUCTS & SERVICES

4.2 – 3 Days Express

Our 3 Days Express service allows you to cope with urgent requirements, as we ship your parts within a time limit of 72 hours for usually ordered parts, and one week for specific dimension with mould creation.

3 Days Express
72 hours



ORDER



PRODUCTION

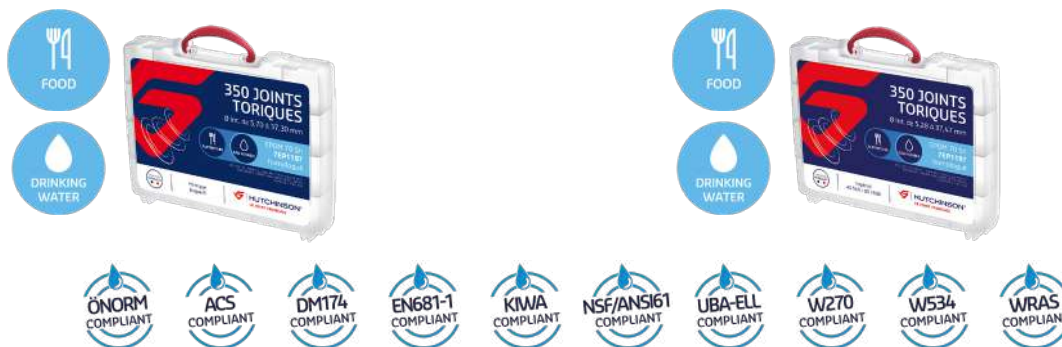


DELIVERY

With our 10 DAYS EXPRESS and 3 DAYS EXPRESS services, your O-Rings will be manufactured and delivered in just a few days!

5 – SEAL KITS

5.1 – EPDM 70 – Drinking water and food



Metric

- Elastomer family: EPDM
- Compound: 7EP1197
- Hardness: 70 Sh.A
- Dimensions: 20 sizes,
inner Ø from 5.70 to 37.30 mm
cross section Ø from 1.90 to 3.60 mm
- LJF part number: 199071

Imperial

- Elastomer family: EPDM
- Compound: 7EP1197
- Hardness: 70 Sh.A
- Dimensions: 20 sizes,
inner Ø from 5.28 to 37.47 mm
cross section Ø from 1.78 to 5.33 mm
- LJF part number: 199072

5.2 – Green FKM 70 – Chemical industry



Metric

- Elastomer family: FKM
- Compound: 7DF2067
- Hardness: 72 Sh.A
- Dimensions: 20 sizes,
inner Ø from 5.70 to 37.30 mm
cross section Ø from 1.90 to 3.60 mm
- LJF part number: 199080

Imperial

- Elastomer family: FKM
- Compound: 7DF2067
- Hardness: 72 Sh.A
- Dimensions: 20 sizes,
inner Ø from 5.28 to 37.47 mm
cross section Ø from 1.78 to 5.33 mm
- LJF part number: 199073

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5.3 – NBR 80 – Gas



Metric

- Elastomer family: NBR
- Compound: PC851
- Hardness: 78 Sh.A
- Dimensions: 20 sizes, inner Ø from 5.70 to 37.30 mm, cross section Ø from 1.90 to 3.60 mm
- LJF part number: 199081

Imperial

- Elastomer family: NBR
- Compound: PC851
- Hardness: 78 Sh.A
- Dimensions: 20 sizes, inner Ø from 5.28 to 37.47 mm, cross section Ø from 1.78 to 5.33 mm
- LJF part number: 199082

5.4 – O-Ring splicing kit

Our O-Ring splicing kit allows the independent assembly of seals from 8 different diameters. Inside the kit you will find all the tools you need to make your own O-Rings: glue, white pencil, aluminium anvil and blade.

- Elastomer family: NBR
- Compound: PB701
- Hardness: 68 Sh.A
- Dimensions: 8 different cord diameters, from 1.90 to 10 mm
- LJF part number: 199001



<https://www.oring.hutchinson.fr/en/products/o-ringkits/>



