



Simriz® materials expertise –
quality without compromise for the
ultimate in resistance

simrit®

Simrit® , Your Global Technology Specialist for Seals and Vibration Control

Simrit, Your Global Technology Specialist for Seals and Vibration Control offers you a complete service package. A unique range of products and services guarantees you numerous advantages over the competition.

Simrit acts as a partner to general industry. Its position as a market leader is achieved through continuous research, development and manufacture. We have the world's widest range of seals and vibration control products, and can offer you solutions based on the demands of state-of-the-art-technology, solutions which set standards.

We can guarantee you a competitive edge based on experience all around the world: Simrit has a presence throughout Europe, America and Asia, either directly or through its affiliated companies NOK (Japan) or Freudenberg-NOK (USA). The transfer of knowledge between these markets is incorporated directly into the Simrit service package.

With our many Simrit Service Centres and Simrit distribution Partners, we serve and supply more than 100,000 customers worldwide. Our Simrit Partners ensure rapid availability from stock. This means spare parts quickly arrive when and where they are needed. There is a Simrit Partner near you as well.

Make the most of Simrit's service package and give yourself a real competitive edge:

- + The technological edge due to constant innovations
- + Savings in cost and time by using a single source for a uniquely wide range of products
- + Increased efficiency, using Simrit's material expertise to extend the service life of your components
- + The competitive edge due to our wide range of value added services



Simrit offers a complete package of products and services, including leading brands such as Simmerring®, Merkel, Integral Accumulator, Meillor and ISC O-Ring.



Simrit® offers you the widest range of new, highly-resistant perfluoro elastomer compounds.



Perfluoro elastomers – or FFKM for short – have an ideal combination of characteristics, with their:

- excellent chemical resistance
- high level of temperature resistance, and
- high levels of elasticity

Under the name Simriz®, Simrit offers you possibly the world's largest range of FFKM ISC O-Rings and FFKM special form O-Rings.

Simriz perfluoro elastomers close the material gap between inelastic PTFE and elastomers, which have poor temperature and chemical resistance properties. With a fluoridation level of 72%, FFKM elastomers have a level of resistance close to that of pure PTFE at 76%. At the same time, FFKM materials are so elastic that they are excellently suited to both static and dynamic seals.



Widest possible range of FFKM

The fascination of Simriz lies in its universal chemical resistance. But it also has other properties which can be emphasised in special compounds.

With a total of nine different Simriz compounds, Simrit offers ISC O-Rings which are specifically optimised with respect to:

- flexibility at low temperatures
- resistance to high temperatures
- hardness
- tensile strength
- elongation
- compression set, or
- colour

Patented linking system

The excellent properties of Simriz can be optimised by selecting the right linking system.

Materials of Simrit are linked either using peroxide or using a patented linking system. This gives these seals excellent chemical resistance as well as outstanding resistance to organic amines and water vapour. This cannot be achieved using other linking systems.

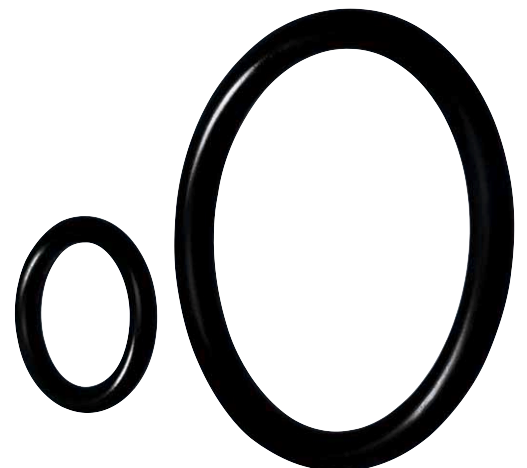
The new Simriz compounds and their individual characteristics at a glance

	Simriz Universal Compounds		Simriz low temperature compound			Simriz high temperature compounds		Simriz FDA compound	Simriz Ultra-pure compound
	75 Simriz 485	75 Simriz 486	70 Simriz 481	75 Simriz 482	75 Simriz 483	75 Simriz 487	70 Simriz 488	75 Simriz 484	65 Simriz 489
Colour	black	white	black	black	white	black	ivory	black	transparent
Shore hardness A	75	75	70	77	74	75	70	75	66
Temperature range	-15 to + 260°C	-15 to + 260°C	-25 to + 230°C	-25 to + 250°C		-0 to + 300°C	-0 to + 300°C	-15 to + 230°C	-0 to + 250°C
Tensile strength in N/mm	18,5	18,0	17,1	16,0	10,5	18,7	20,1	22,1	13,5
Elongation in %	195	190	260	230	230	170	190	165	235
CS 70 h at 200°C	25	25	27	29	33			34	
CS 70 h at 250°C									20
CS 70 h at 275°C						26	28		
Water-resistance 70 h/200°C	5,1	5,9	6,3	6,6	27	1,9	3,2	6,5	

ISC O-Rings from Simrit are available in nine different Simriz compounds. As well as almost universal chemical resistance, these elastomer seals of Simrit offer very individual strengths which have each been optimised to suit your specialist processes and process.

Delivery times and availability

ISC O-Rings and O-Ring special forms made of Simriz are specially produced to match your requirements. Standard sizes can be delivered within a few days.



The right ISC O-Ring for every application – made of an optimised Simriz compound

The individual adaptation of the compounds means we can offer you a wide range of different areas of application for your ISC O-Rings.

No compromises when it comes to high resistance

Methanol, formic acid, methyl ethyl ketone, trichloric acetic acid or ethylenediamine are definitely among the most aggressive chemicals around. ISC O-Rings made of Simriz provide optimum seal stability even under these conditions.

Simriz used in high temperatures of up to +300°C

75 Simriz 487 and 70 Simriz 488 provide excellent resistance at up to +300°C for high temperature processes.

Also flexible at low temperatures

Simriz has excellent chemical resistance – but is insufficiently flexible at temperatures below 0°C.

Therefore, Simrit offers you a modified Simriz seal for low temperature processes.

The flexibility of the elastomer 70 Simriz 481 is still good enough at -25°C to ensure impermeability in the long term.

Leaching is not a problem with Simriz

The specialist compound 65 Simriz 489 is formulated such that it has:

- very low gas evolution
- minimal permeation
- very good temperature resistance at up to +250°C.

This means that this Simriz compound has excellent credentials for the prevention of contamination caused by leaching effects, making it ideal for use in the semiconductor industry.



Simriz pharmaceutical seals

75 Simriz 484 was specially developed to meet the exacting requirements of the pharmaceuticals industry. With properties which exactly meet FDA specifications, this seal can be used in system components and equipment parts designed for the pharmaceuticals and food industries and for biotechnology.

The solutions are as customized as the choices are wide

Simriz compounds mean reliable sealing solutions in:

- Pharmaceuticals production
- Biotechnology
- Semiconductor industry
- Food and beverages industry
- Drinks technology
- Air and space travel
- Mechanical engineering
- Paint and varnish industry
- System and plant engineering
- Laboratory engineering
- Sensorics
- Medical technology
- Water purification systems
- Plasma systems
- Instrumentation
- Flange connectors
- Refrigeration technology
- Pumps, measuring pumps and vacuum pumps
- Packaging machines
- Spray guns
- Fuel and oil systems

Simrit, Your Global Technology Specialist for Seals and Vibration Control

Simrit Services

Constant innovations

Uniquely wide range of products

Unique materials expertise

A wide range of value added services

Your Benefits

Technological edge

All from one source

Longer unit service life

Competitive advantages, efficiency and lower costs

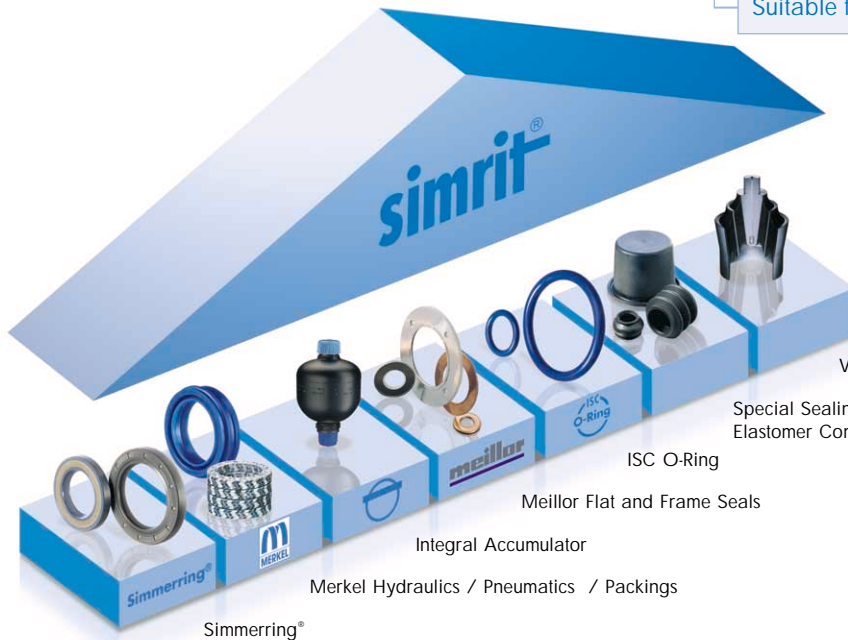
e.g. — ISC O-Rings made of Simriz

Your Benefits

High level of chemical resistance

High level of temperature flexibility

Suitable for industry-specific requirements



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