

# Dirko™ HT oxime (grey / black)

## Description and applications

Dirko™ HT oxime (neutral curing) is a highquality, high temperature resistant single component silicone-based sealing compound that exhibits permanently resilient properties. It provides excellent adhesion on all standard metals, cast iron, plastics (except for PE, PP and PTFE) and glass. RTV silicone hardens when exposed to air humidity. The product is characterised by a very wide range of applications.



## 1. General product information

<b>Chemical basis</b>	<b>Oxime silicone</b>
<b>Curing</b>	Room temperature vulcanised (RTV)
<b>Components</b>	Single component
<b>Colour</b>	Grey / black
<b>Consistency</b>	Pasty, stable, permanently resilient when cured
<b>Temperature range</b>	-60°C to +285°C (for 24h up to +315°C)
<b>Maximum sealing gap</b>	2.0 mm
<b>pH value</b>	Neutral
<b>Electrical conductivity</b>	Insulating
<b>Resistant to</b>	Mineral oils (including additives), synthetic oils, lubricating grease, coolants, UV radiation, cold and hot water, salt water, cleaning agents, weak acids and alkalis.
<b>Possible applications</b>	Valve cover, oil pan, water and oil pump, differential housing, gearbox, gear oil sump, thermostat housing, control housing, axle cover, flange connection, headlights, rear light, battery compartment.

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## 2. Technical data

### 2.1 General properties

Measured variable	Value	Test standard
Shore A hardness	40 ± 5	DIN 53505
Density (black)	1.18 ± 0.02 g/ml	DIN 53479
Density (grey)	1.22 ± 0.02 g/ml	DIN 53479
Skin formation time (23°C, 50% relative humidity)	5 - 10 min	DIN EN ISO 291
Curing time (23°C, 50% relative humidity)	Approx. 4.5 mm / 24 h	DIN EN ISO 291
Elastic modulus 100%	1.0 ± 0.2 N/mm <sup>2</sup>	DIN EN ISO 8339
Elongation at break	400 ± 100 %	DIN 53504
Tensile strength	3.3 ± 0.2 N/mm <sup>2</sup>	DIN 53504

#### Sensor Safe

The oxime-cured silicones don't emit any gas during curing that could corrode sensitive electronic components, especially unprotected metallic surfaces, e.g. on a sensor

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## 2.2 Media resistance

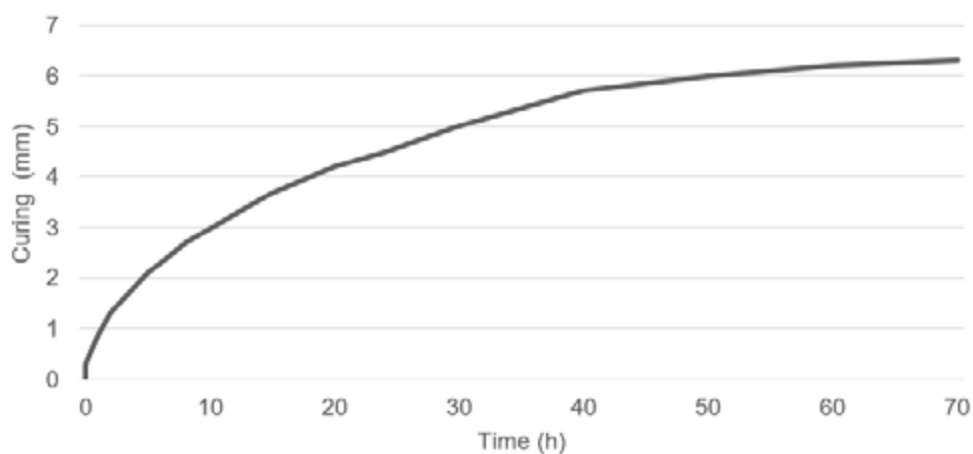
To demonstrate the media resistance of the sealing compound, the test specimens are stored in the relevant medium for the specified duration. The tensile shear strength is then determined (ISO 4587). The following table shows the percentage variation in the tensile shear strength from the initial value without the influence of the medium.

Medium	Property	Temperature [°C]	Variation from initial value [%]		
			250 h	500 h	1000 h
Air	Elongation at break (%)	250	-2	4	31
	Tensile strength (N/mm <sup>2</sup> )	250	44	43	32
	Elongation at break (%)	285	50	62	83
	Tensile strength (N/mm <sup>2</sup> )	285	1	-15	-20
Engine oil	Elongation at break (%)	120	21	33	45
	Tensile strength (N/mm <sup>2</sup> )	120	-9	-15	-50
Water/ glycol (50/50)	Elongation at break (%)	95	1	11	-12
	Tensile strength (N/mm <sup>2</sup> )	95	84	87	69

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## 2.3 Curing rate

The curing rate depends on the temperature and humidity. The higher the temperature and the humidity, the faster Dirko™ HT oxime cures to form silicone. The lower diagram shows the progression of the curing rate over time in a standard climate (23°C/50% relative humidity).



## 2.4 Surface adhesion

The adhesion of Dirko™ HT oxime on different surfaces plays a crucial role in its use as a surface seal. The following figures show the measured tensile shear strength for a sealing gap of 1 mm (ISO 4587).

Surface	Tensile shear strength [N/mm <sup>2</sup> ]
Steel (galvanised)	0,90
Aluminium	2,00
Polyamide 6.6	0,60

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## 3. General information

### 3.1. Usage and processing instructions:

1. Remove sealant residues and clean the sealing surfaces with solvent.
2. Sealing surfaces must be clean, dry, and free of oil or grease before applying the sealing compound in order to ensure reliable sealing and adhesion.
3. Processing temperature (ambient / adhesion surface temperature): +5 to +35°C.
4. Apply the sealing compound evenly across the entire surface.
5. Immediately remove any excess sealing compound applied, as there is a risk that it could drip into the interior.
6. Depending on the application, the parts can be fitted immediately after application, after skin formation or after complete curing.
7. Fit the components in line with the manufacturer's specifications.
8. The sealing function is immediate.
9. After use, reseal the sealing compound securely.
10. Safety and technical data sheet at [www.elring.com](http://www.elring.com).
11. In case of further questions, please contact our service hotline.

### 3.2. Storage

- Optimum storage conditions: Cool (+5°C to +25°C) and dry location.
- Minimum shelf life: 15-24 months in unopened containers.  
Seal opened containers securely and use up as soon as possible.
- The batch number has the following structure: YYWWCCCCCCC (filling date).

### 3.3. Delivery form

Item no.	Package content	Volume	colour	Minimum shelf life	Packaging unit	CLP label
896.341	Tube, tube key, nozzle	70 ml	Black	24 months	12 units	EN/FR/ES
919.411	Compressed gas cartridge, nozzle	200 ml	Black	24 months	6 units	
510.031	Tube, tube key, nozzle	70 ml	Grey	24 months	12 units	
074.723	Cartridge, nozzle	310 ml	Grey	15 months	12 units	

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## 3.4. Exclusion of liability

The above specifications in this technical data sheet, in particular the suggestions for processing and usage of our products, are based on our current knowledge and experience. As a result of the varied possible uses and the fact that the usage and working conditions are outside our area of influence, we accept no liability for the suitability of our products for a particular production process under specific working conditions, or for the intended processing purposes and results. To ensure suitability, we recommend that adequate independent trials and tests are always performed in advance.

Any liability resulting from the information in this technical data sheet and from other written or verbal advice for the product in question is explicitly excluded, unless a case of injury, death or health problems arises that is due to intent or gross negligence on our part, or we are subject to liability under mandatory product liability law.