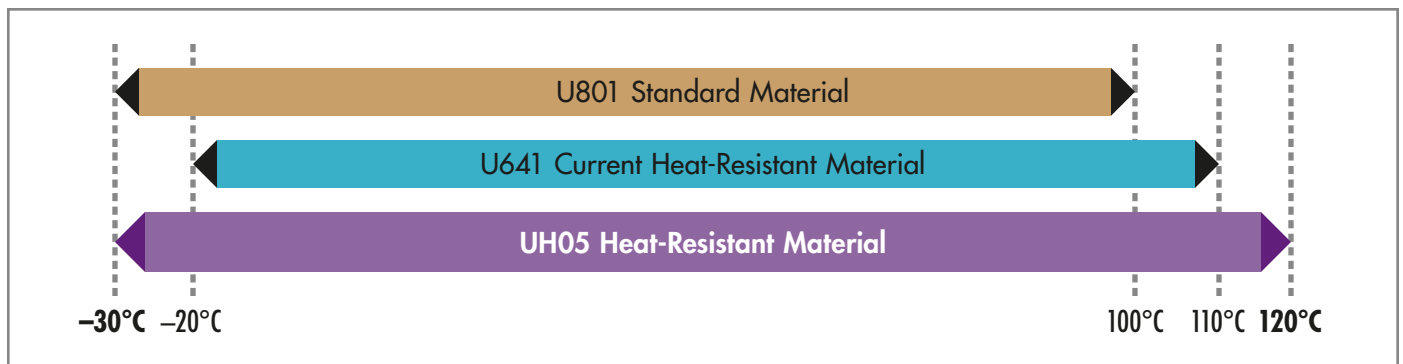


## UH05 heat-resistant urethane seals

UH05 sealing delivers the superior temperature range of  $-30^{\circ}\text{C}$  to  $120^{\circ}\text{C}$

Simrit partner NOK has developed a new heat-resistant urethane material with a much wider temperature range than can be found in current conventional products. Our advanced

synthetic rubber processing technology now provides customers with a variety of new high-temperature UH05 sealing products.



# UH05 heat-resistant urethane seals

## Features and properties of UH05 seals

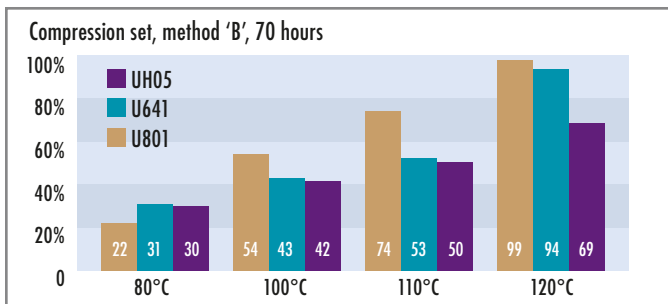
### Standard features—comparative material properties

	Hardness Shore A	Color	Tensile Strength PSI/Mpa	Ultimate Elongation (%)	100% Modulus PSI/Mpa	300% Modulus PSI/Mpa	Resilience (%)	Specific Gravity (±0.02)	TR <sub>10</sub> Value	Max. Rated Cont. Temp. °C/°F
ASTM	D-2240	—	D-412	—	—	—	D-2632	D-297	—	—
U801	92 A	natural	6500/44.8	420%	2000/13.8	3500/24.1	35%	1.17	-29/-20	100°/212°
U641	94 A	light blue	6540/45.1	350%	1885/13.0	2850/19.6	40%	1.18	-18/0	110°/230°
<b>UH05</b>	<b>95 A</b>	<b>violet</b>	<b>6816/47</b>	<b>440%</b>	<b>2567/17.7</b>	<b>2770/19.1</b>	<b>34%</b>	<b>1.14</b>	<b>-27/-16</b>	<b>120°/248°</b>

NOTE: Hardness values are ±5 points on the Shore A scale and ±2 points on the D scale, all other values are ±10%. These values are not to be used for specification purposes. They are provided only to serve as a guide for engineering and application design. Values are median data taken from laboratory specimens.

### Heat resistance—compression set

UH05 demonstrates good heat resistance with almost no permanent deformation.

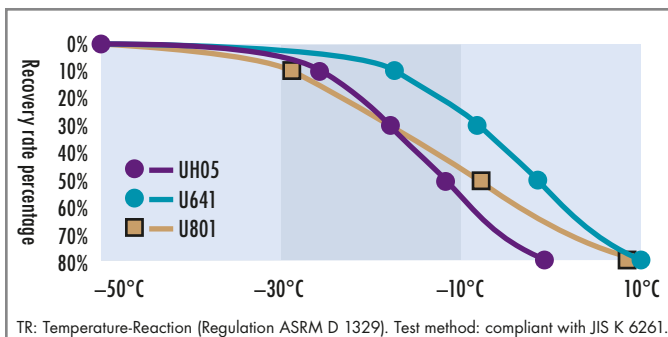


### Cold resistance

Elastomeric properties can be quickly restored even in low temperatures, ensuring stable sealing in cold applications.

Material	TR <sub>10</sub>	TR <sub>30</sub>	TR <sub>50</sub>
<b>UH05</b>	<b>-27°C</b>	<b>-18°C</b>	<b>-12°C</b>
U641	-18°C	-8°C	-2°C
U801	-29°C	-18°C	-8°C

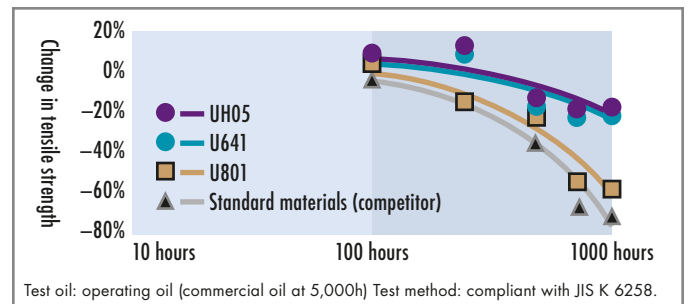
TR<sub>10</sub>: temperature at which elastomeric properties are restored by 10%  
 TR<sub>30</sub>: temperature at which elastomeric properties are restored by 30%  
 TR<sub>50</sub>: temperature at which elastomeric properties are restored by 50%



### Heat resistance—degradation

UH05 has good resistance against degraded (waste) oil.

#### Degraded oil dip test results (at 100°C)



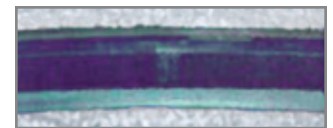
Longer service life is possible even under severe operating conditions (extended continuous operation, e.g., construction equipment HBV buffer rings operated for 1,000 hours).

Photos below show the inner sliding surface periphery.

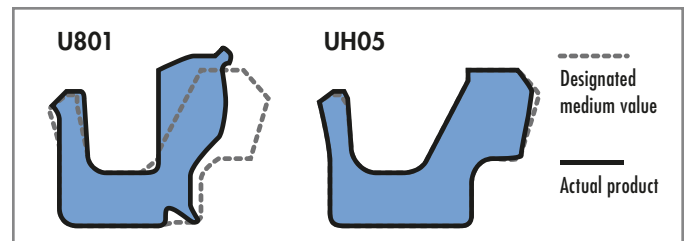
U801



UH05



Seal cross-section deformation comparison



Please confirm the actual compatibility of a selected product with your application before usage.