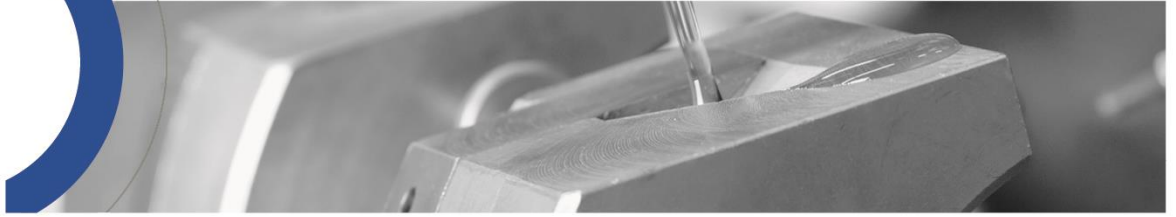


Semi-finished product range
 Cast and moulded parts
 Elastomer spring elements
 Snow plow blades
 Clutch packages
 Protective jaws
 PUR metal compounds
 Concrete-wear parts
 Wheels, rollers and mills



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TECHNICAL DATA SHEET

Polyurethane D44, 90 +-5 Shore A, brown

Properties

Hardness Shore A DIN 53505	85 - 85	SHA
Color	brown	
Density	1.25	g/cm ³
Temperature range	-10 - +60	°C
Tear resistance DIN 53504	48	MPa
Elongation at break DIN 53504	600	%
Tear propagation resistance DIN 53507	45	N/mm
Abrasion loss DIN 53516	32	mm ³
Oil resistance	very good	
Resistance to gasoline	good	
Resistance to acids	limited	
Alkali resistance	limited	
Comments	IMDS data available	
Compression set	24h, 70 °C = 20 %	

Polyurethane D44 is an inexpensive alternative to Vulkollan, however with reduced properties.

Trials recommended.

Hydrolysis resistance:

This material is manufactured with the addition of hydrolysis protection agents.

Hydrolysis is regarded as the time-related drop of typical technical parameters such as e.g. tensile strength, elongation at break and tear propagation resistance, which is initiated above all by water or moisture in combination with heat. The extent of the change is thereby dependent on the duration and intensity of the influence.

Polyurethane D44 is basically equipped so that an improved hydrolysis protection is provided in comparison to polyurethanes that are not especially protected. Nevertheless a drop in the technical characteristic values can be determined, however this change is slowed considerably.

An unambiguous statement about the hydrolysis resistance (as for instance with statements about the resistance to certain chemicals) is not possible, since the limit values vary greatly depending on the respective case of application.

Referenced standards correspond to the version number of the data sheet provided by our raw material supplier. All details are mean values. Our recommendations are given to the best of our knowledge. They are however without obligation, and we cannot accept any liability for damage or disadvantages of any kind, including in relation to third-party property rights. They do not release the purchaser from performing his own tests and inspections.

Issue: 09/07/15



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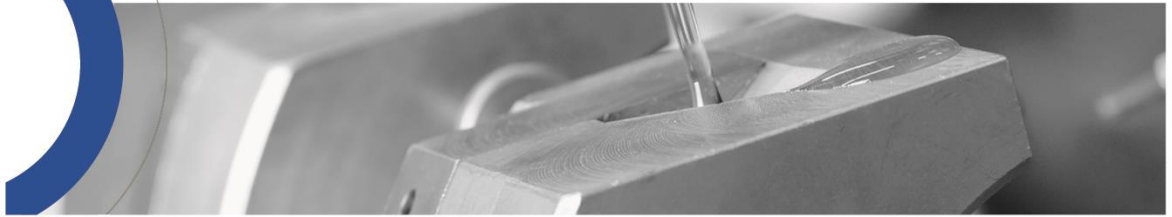
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Resistances

	During the influence at room temperature	After short-term influence at room temperature
Acids and alkaline solutions: <ul style="list-style-type: none"> - concentrated - diluted (< 3 %) 	<ul style="list-style-type: none"> - destroyed - Volume swelling <20%, - low loss in strength 	<ul style="list-style-type: none"> - destroyed - original volume; - original strength
Saturated hydrocarbons <ul style="list-style-type: none"> - Crude oil - Diesel fuel - Gasoline 	<ul style="list-style-type: none"> - Volume swelling <20%, - low loss in strength 	<ul style="list-style-type: none"> - original volume; - original strength
Aromatic hydrocarbons: <ul style="list-style-type: none"> - Super fuel - Benzene - Toluene - Xylene 	<ul style="list-style-type: none"> - Volume swelling <20%, - significant loss in strength 	<ul style="list-style-type: none"> - original volume; - original strength
Lubricating oils and greases: <ul style="list-style-type: none"> - ASTM-test oil 1, 2, 3 - Diesel fuel - Gasoline 	<ul style="list-style-type: none"> - Volume swelling <20%, - low loss in strength 	<ul style="list-style-type: none"> - original volume; - original strength
Alcohols: <ul style="list-style-type: none"> - Methanol - Ethanol 	<ul style="list-style-type: none"> - Volume swelling <20%, - low loss in strength 	<ul style="list-style-type: none"> - original volume; - original strength

In contrast to other plastics, polyurethane D44 is resistant to ozone and UV-radiation. Evidence for this are the ship- and harbor bumpers. Even after many years exposed to weathering in the ocean climate, no drop in the usage properties was determined with this material.

The resistance to chemicals depends to a great extent on the duration of the contact, the predominant temperature as well as on the quantity and concentration of the respective chemical. Insofar only general information can be provided in the table.

For other chemicals not listed here or for deviating conditions of the contamination, if needed tests can be carried out. That also applies for the chemicals and fuels specified here, if these should come into contact with polyurethane D44 not in pure form, rather mixed with additives.

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