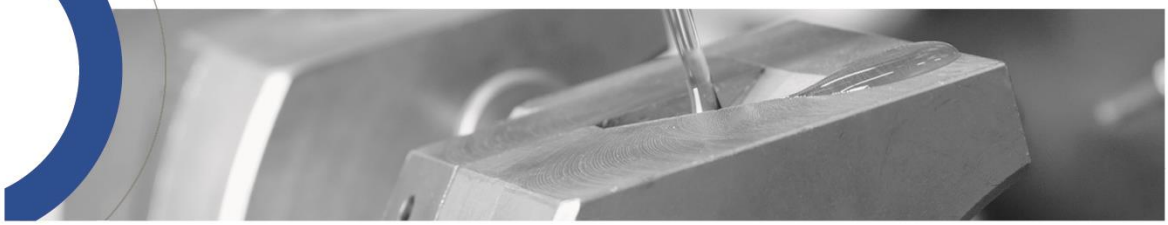
QUADRIGA
POLYURETHANES AND MORE

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



TECHNICAL DATA SHEET
Polyurethane D44, 72 +-5 Shore A, brown

Properties

Hardness Shore A DIN 53505	67 - 77	SHA
Color	brown	
Density	1.24	g/cm³
Temperature range	-10 - +60	°C
Tear resistance DIN 53504	46	MPa
Elongation at break DIN 53504	550	%
Tear propagation resistance DIN 53507	30	N/mm
Abrasion loss DIN 53516	30	mm³
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 C D44 is an inexpensive alternative to Vulkollan and Polyurethane D44, 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.

Issue: 09/07/2015

We look forward to hearing from you. QUADRIGA – Your partner for POLYURETHANE

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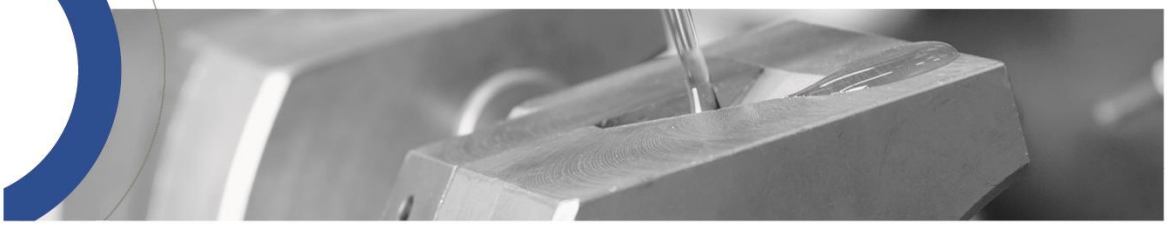

Resistances

	During the influence at room temperature	After short-term influence at room temperature
Acids and alkaline solutions: - concentrated - diluted (< 3 %)	- destroyed - Volume swelling <20%, - low loss in strength	- destroyed - original volume; - original strength
Saturated hydrocarbons - Crude oil - Diesel fuel - Gasoline	- Volume swelling <20%, - low loss in strength	- original volume; - original strength
Aromatic hydrocarbons: - Super fuel - Benzene - Toluene - Xylene	- Volume swelling <20%, - significant loss in strength	- original volume; - original strength
Lubricating oils and greases: - ASTM-test oil 1, 2, 3 - Diesel fuel - Gasoline	- Volume swelling <20%, - low loss in strength	- original volume; - original strength
Alcohols: - Methanol - Ethanol	- Volume swelling <20%, - low loss in strength	- 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 C D44 not in pure form, rather mixed with additives.

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