

HPU15 casted Thermoplastic polyurethane with solid lubricant

Mechanical, Physical and Thermal Properties

MATERIAL	HPU15 (High polyurethane) filled with different lubricants
CHEMICAL PROP.	Copolymer, based on aromatic isocyanate and diols and internal lubricants Resistant to oil, hot water, hot air, ozone Not resistant to conc. acids, conc. lye's, conc. alcohols and aromatic solvents

Properties	Condition	Standard	Unit	Unit	Unit	Unit
Colour	23°C			several		several
Hardness	23°C/ 3sec.	ISO 868	Shore A	96 ± 2	/	/
Hardness	23°C/15sec	ISO 868	Shore D	48 ± 3	/	/
Hardness	23°C	ISO 868	Shore D	45 ± 3	/	/
Modulus 100%	23°C	DIN 53 504	MPa	≥ 12	psi	≥ 1740
Modulus 300 %	23°C	DIN 53 504	MPa	≥ 22	psi	≥ 3190
Tensile strength	23°C	DIN 53 504	MPa	≥ 45	psi	≥ 6525
Elongation at break	23°C	DIN 53 504	%	≥ 350	/	/
Tear strength	23°C	DIN ISO 34-1	kN/m	≥ 80	lbf/inch	≥ 450
Spec. gravity	23°C	ISO 1183	kg/m ³	1190	g/cm ³	1,19
Abrasion	23°C	DIN 53 516	mm ³	15	/	/
Compression set	*	ISO 815	%	≤ 30	/	/
Compression set	**	ISO 815	%	≤ 35	/	/
Minimum service temperature			°C	-20	°F	-4
Maximum service temperature			°C	110	°F	230
Maximum and minimum temperature can be adjusted conform application. For limitations for special applications, please contact AST						

*24h 70C 25% def.

**24h 100 C 25% def.

The above values are typical

The information in this datasheet is based on many years of experience in the application of HPU15. However, unknown parameters and conditions may restrict general statements during usage. It is vital that users satisfy themselves as to the suitability of individual products through adequate testing. For this reason and due to the wide range of applications of our products, AST B.V. can accept no liability as to the suitability or correctness of our recommendations in individual cases. The application limits for pressure, temperature and velocity given in this datasheet are maximum values determined in the test laboratory. During practical applications it should be remembered that due to the interaction of the operating parameters, the maximum values must be set correspondingly lower. For exceptional operating conditions, please contact us.