

TR AidAMID® E (PA6 E)

Density 1,13 g/cm³

Colour Natural opaque

Chemical Designation PA6 E (Polyamide 6 extruded)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	3000	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength at yield	85	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at break	70	%	50 mm/min	DIN EN ISO 527-2
Impact strength (Charpy)	No break	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	160	MPa		ISO 2039-1
Creep rupture with static load	45	MPa	After 1000 hours	
Time yield limit fir 1% elong.	4,50	MPa	After 1000 hours	
Coefficient of friction	0,38 – 0,45	-	Against steel p=0,05 N/mm ²	
Thermal properties				
Glass transition temperature	60	°C		DIN 53765
Melting temperature	220	°C		DIN 53765
Service temperature	160	°C	Short term	
Service temperature	100	°C	Long term	
Thermal expansion	8	10 ⁻⁵ K		DIN 53483
Specific heat	1,7	J/(g+K)		ISO 22007-4:2008
Thermal conductivity	0,23	W/(K+m)		ISO 22007-4:2008
Electrical properties				
Surface resistance	10 ¹²	Ω		DIN IEC 60093
Specific volume resistance	10 ¹³	Ω . cm		DIN IEC 60093
Dielectric constant	3,70 / 7		At 10 ⁵ Hz	DIN 53483
Dielectric loss factor	0,031 / 0,30		At 10 ⁵ Hz	DIN 53483
Dielectric strength	50 / 20	kV/mm	1 mm.	ASTM 149
Tracking resistance	CTI 600			DIN 53480
Miscellaneous properties				
Water absorption	3	%	24h / 96h (23°C)	DIN EN ISO 62
Resistance to hot mater / bases	Limited			
Resistance to weathering	Not resistant			
Flammability (UL94)	HB		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Very abrasion resistant
 Electrically insulating
 Good chemical resistance to many oils, diesel, petrol and greases
 Tough and rigid
 Easy machined

INDUSTRY APPLICATIONS

Impact and damping plates
 Conveyor screws
 Friction bearings
 Castors
 Gear wheels

Notice: The information given was made with our knowledge indicating our product's possible applications. Existing commercial patents must be observed. These values represent averages taken from samples, so we reserve the right of technical alterations. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review, the most recent update can be found at www.traidvillarroya.com. Traidamid, TKG and TVH as well as their logos are registered trademarks of the Traid Villarroja group of companies, in Europe and other countries.