

TENAC™ and TENAC™-C Polyacetal (POM) for Broad Range of Automotive Applications









Application Areas

TENAC™ (Homopolymer)

- Automotive industry (seatbelts)
- Electrical and electronics industry
- Manufacturing industry (gears)
- Home appliances (gears, rollers)

TENAC™-C (Copolymer)

- Automotive industry (inside door handles, seat adjusters, seat belt push buttons)
- Electrical and electronics industry
- Manufacturing industry (gears)

Solution / Innovation for the Industry

- Broad range of grades with high viscosity and weatherability
- Top-class low-VOC performance: Meets low emission specifications of all OEMs

		Unit	Homopolymer Z3010	Copolymer			
	Method			Z3510	Z3513	Z4520	ZLV40
Stress At Break	180527	MPa	70	62	62	63	61
Strain At Break	ISO527	%	50	40	40	35	20
Tensile Modulus	ISO527	MPa	3000	2500	2500	2700	2700
Flexural Modulus	ISO178	MPa	2800	2400	2400	2500	2600
Charpy Impact Strength (Notched)	ISO179	kJ/m²	13	9	8	7	5
Melt Mass Flow Rate	ISO1137	g/10min	2.4	2.8	3	9	9
Molding Shrinkage	Asahi Kasei Method		1.8 - 2.2	1.6 - 2.0	1.6 - 2.0	1.6 - 2.0	1.6 - 2.0

Properties of various TENAC™ grades

TENAC™ polyacetal (POM) is a crystalline engineering thermoplastics. It features high wear resistance combined with stiffness and strength. Due to its low friction and excellent dimensional stability, it is particularly suitable for precision parts and performance engineering components such as gears or door systems.

TENAC™ (Homopolymer) features excellent strength, stiffness and creep resistance. TENAC™-C (Copolymer) features an excellent oil / solvent resistance. Its low-VOC grades meet OEM's low emission specifications for vehicle interiors.

Asahi Kasei is the world's only supplier producing both homoand copolymer-polyacetal.

Key Properties

- Strength and stiffness
- Toughness
- Creep resistance
- Fatigue resistance
- Friction, abrasion and wear characteristics
- Dimensional stability
- Resistance to oils and organic solvents