



PROFESSIONAL PLASTICS

Pomalloy® ESd Acetal

Pomalloy ESd is a compound based on Acetal copolymer resin containing proprietary Anti-Static additives.

TYPICAL PROPERTIES ⁽¹⁾			
MECHANICAL	Value	Unit	Standard
Tensile Stress, yield	420	kgf/cm ²	ASTM D 638
Tensile Stress, break	320	kgf/cm ²	ASTM D 638
Tensile Strain, yield	15.8	%	ASTM D 638
Tensile Strain, break	59.5	%	ASTM D 638
Tensile Modulus, 50 mm/min	16300	kgf/cm ²	ASTM D 638
Flexural Stress	490	kgf/cm ²	ASTM D 790
Flexural Modulus	14600	kgf/cm ²	ASTM D 790
Tensile Stress, yield	41	MPa	ISO 527
Tensile Stress, break	36	MPa	ISO 527
Tensile Strain, yield	13.3	%	ISO 527
Tensile Strain, break	49.2	%	ISO 527
Tensile Modulus, 1 mm/min	1500	MPa	ISO 527
Flexural Stress	40	MPa	ISO 178
Flexural Modulus	1500	MPa	ISO 178
IMPACT	Value	Unit	Standard
Izod Impact, unnotched, 23°C	NB	cm-kgf/cm	ASTM D 4812
Izod Impact, notched, 23°C	NB	cm-kgf/cm	ASTM D 256
Instrumented Impact Energy @ peak, 23°C	293	cm-kgf	ASTM D 3763
Multiaxial Impact	170	cm-kgf	ISO 6603
Izod Impact, unnotched 80*10*4 +23°C	NB	kJ/m ²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	15	kJ/m ²	ISO 180/1A
THERMAL	Value	Unit	Standard
HDT, 0.45 MPa, 3.2 mm, unannealed	146	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	67	°C	ASTM D 648
CTE, -40°C to 40°C, flow	1.3E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, xflow	1.33E-04	1/°C	ASTM E 831
CTE, -40°C to 40°C, flow	1.3E-04	1/°C	ISO 11359-2
CTE, -40°C to 40°C, xflow	1.33E-04	1/°C	ISO 11359-2
PHYSICAL	Value	Unit	Standard
Density	1.32	g/cm ³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	2.29	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	1.8	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	1.8	%	ASTM D 955
Mold Shrinkage, flow, 24 hrs	1.81	%	ISO 294
Mold Shrinkage, xflow, 24 hrs	1.83	%	ISO 294
Wear Factor Washer	14	10 ⁻¹⁰ in ⁵ -min/ft-lb-hr	ASTM D 3702 Modified
Dynamic COF	0.42	-	ASTM D 3702 Modified
Static COF	0.25	-	ASTM D 3702 Modified
Density	1.33	g/cm ³	ISO 1183
Moisture Absorption (23°C / 50% RH)	4.28	%	ISO 62
ELECTRICAL	Value	Unit	Standard
Surface Resistivity	10 ⁹ th – 10 ¹¹ th	Ohms	ASTM D 257

THESE PROPERTY VALUES ARE NOT INTENDED FOR SPECIFICATION PURPOSES.

(1) Typical values only. Variations within normal tolerances are possible for various colors. All values are measured after at least 48 hours storage at 23°C/50% relative humidity. All properties, except the melt volume and melt flow rates, are measured on injection molded samples. All samples tested under ISO test standards are prepared according to ISO 294.

(2) Only typical data for selection purposes. Not to be used for part or tool design.

(3) This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions.

(4) Internal measurements according to UL standards.

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Pomalloy® Plates and Rods are produced in standard and custom sizes upon request.

Standard Sheet Size: 24" x 48" - Thickness Range: .250" up to 2.00"

Standard Rod Lengths: 8 feet - Standard Rod Diameters: .500" up to 3.00"

Order Pomalloy® ESD Acetal Online at:

www.professionalplastics.com/POMALLOY_ESD_Acetal



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