

Technical Data Sheet

Tenite™ Cellulose Acetate Granules

(Standard and Renew)

Application/ Users:

■ Frames

■ Tools handles

■ Toys / Sporting goods

■ Sequins

Product description

Tenite™ Cellulose acetate granules are noted for their excellent balance of properties – toughness, hardness, strength, surface gloss, clarity, and a warm feel. The mechanical properties of **Tenite™** Cellulose acetate granules differ with plasticizer levels. Lower plasticizer content yield a harder surface, higher heat resistance, greater rigidity, higher tensile strength, and better dimensional stability. Higher plasticizer content increases impact strength, resistance at lower temperature, and flexibility. **Tenite™** Cellulose acetate granules are available in natural, clear, color granules. **Tenite™** Cellulose acetate granules is heat stabilized and has a plasticizer level of 26%-34%. Different formulations are be available on demand for customized applications.

Properties	Test Method	Units	Ref. Values								
Plasticizer		%	26	27	28	29	30	31	32	33	34

Physical

Density	ASTM D 792	g/cm ³	1.27	1.27	1.27	1.27	1.27	1.27	1.26	1.26	1.26
Rockwell hardness	ASTM D 785	R scale	95	90	80	77	70	65	55	45	40
Shore hardness	ASTM D 2240	D scale	79	77	75	74	73	72	71	70	70
Mold shrinkage	ASTM D 955	%	0.4-0.6								

Thermal

Heat deflection temperature (HDT)	ASTM D 648										
@ 0.455 Mpa		°C	72	70	68	66	64	63	63	62	62

Mechanical

Tensile strength	ASTM D 638	Mpa	35	33	31	30	29	28	28	27	27
Elongation at break	ASTM D 638	%	9	10	11	12	13	14	15	15	15
Yield Strength	ASTM D 638	Mpa	35	33	31	29	27	26	25	24	24
Elongation at Yield	ASTM D 638	%	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Tensile modulus	ASTM D 790	Mpa	2100	1900	1700	1600	1500	1400	1300	1200	1100
Flexural strength	ASTM D 790	Mpa	24	22	21	20	19	18	17	16	15
Flexural modulus	ASTM D 790	Mpa	1900	1700	1600	1500	1400	1300	1200	1100	1100
Charpy impact resistance, unnotched	ISO 180	KJ/m ²	160	160	159	158	157	156	155	154	153
IZOD impact resistance, notched	ASTM D 256	KJ/m ²	18	19	20	22	24	26	27	28	28

Electrical

Tracking resistance	DIN 53480	V	>600	>600	>600	>600	>600	>600	>600	>600	>600
Dielectric constant	DIN 53483	/									
@ 50Hz		/	/	/	5.5	5.6	5.8	/	5.8	5.9	5.9
@ 10 ⁶ Hz		/	/	/	4.2	4.2	4.3	/	4.4	4.5	4.5

General performance

Melt fluidity	- -	+	++	+++
Surface hardness	++	++	+	-
low temperature applications	+-	+	+	++

Test conditions: conditioning the test samples at 23°C with relative humidity of 50% for 10 days

Comments

Properties reported here are typical of average lots. Eastman Mazzucchelli Plastics (Shenzhen) Co., Ltd makes no representation that the material in any particular shipment will conform exactly to the values given.

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