



Nylon 12 系列複合材料物性表

compound datasheets

項目 Property		試驗法 ASTM Method	單位 Units	Nylon 12	Nylon 12, PTFE20	Nylon 12, GF10	Nylon 12, GF20	Nylon 12, GF30	Nylon 12, GF40	Nylon 12, CF20	Nylon 12, CF30	
一般性質	比重 Specific Gravity	D792	-	1.02	1.13	1.08	1.15	1.23	1.31	1.1	1.15	
	成型收縮率 Mold Shrinkage	6.35mm截面	D955	%	-	-	-	-	-	-	-	-
		3.18mm截面			1.6~2	1~2	0.4~0.6	0.3~0.5	0.2~0.3	0.1~0.3	0.1~0.3	0.1~0.2
吸水率(24 hours) Water absorption, 24 hrs @ 23°C		D570	%	-	-	-	-	-	-	-	-	
機械性質	衝擊強度 Impact Strength	3.18mm截面(缺口) Notched Izod	D256	J/m	53	69	54	91	128	208	85	149
		3.18mm截面(無缺口) Unnotched Izod			1442	801	491	614	747	1121	614	774
	伸張強度 Tensile Strength		D638	MPa	41	34	48	76	100	131	110	141
	延伸率 Tensile Elongation		D638	%	>10	>10	>10	3~4	3~4	3~4	2~3	2~3
	伸張模數 Tensile Modulus		D638	MPa	1379	1379	2482	4482	6206	8964	8274	13790
	彈性強度 Flexural Strength		D790	MPa	48	48	66	110	155	207	162	221
	彈性模數 Flexural Modulus		D790	MPa	1310	1379	2068	3792	5516	7584	8274	12411
洛氏硬度 Rockwell Hardness		D785	-	-	-	-	-	-	-	-	-	
熱性質	熱變形溫度 DTUL	at 264 psi (1.82 MPa)	D648	°C	-	52	-	-	163	-	-	-
		at 66 psi (0.455 MPa)			-	-	-	-	177	-	-	-
	連續使用溫度 Continuous Use Temp.		UL-746B	°C	-	-	-	-	-	-	-	-
	線性熱膨脹係數 Coefficient of Linear Thermal Expansion		D 696	10 ⁻⁵ /°C	-	-	-	-	-	-	-	-
防火等級 Flammability thickness		-	-	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	*HB @ 1.5 mm	
電氣性質	體積固有電阻 Volume Resistivity		D257	ohm-cm	-	-	-	-	-	-	-	-
	表面電阻 Surface Resistivity		D257	ohm/SQ	-	-	-	-	-	-	-	-
	靜電消散(MIL-PRF-81705C) Static Decay		FTMS-4046.1	sec	-	-	-	-	-	-	-	-

* Tested by factory.

Data are obtained from specimens molded under carefully controlled conditions from representative samples of the compound described herein. Properties may be materially affected by molding techniques applied and by the size and shape of the item molded. No assurance can be implied that all molded articles will have the same properties as those listed.