

TECAFORM AH black - 型材 (棒材, 板材, 管件)

化學命名

POM-C (聚縮醛 (共聚物))

顏色

黑色 不透明

密度

1.41 g/cm³

主要特色

- 高剛性
- 高強度
- 高韌性
- 良好的耐化學性
- 難以黏合
- 良好的滑動及耐磨特性
- 良好的加工特性

目標產業

- 機械工程
- 汽車工業
- 航空與航太科技
- 食品科技
- 石油和天然氣工業

機械特性	參數	值	單位	標準	註解
抗拉強度	50mm/min	67	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
彈性模數 (張力測試)	1mm/min	2800	MPa	DIN EN ISO 527-2	(2) For flexural test: support span 64mm, norm specimen.
降伏點抗拉強度	50mm/min	67	MPa	DIN EN ISO 527-2	(3) Specimen 10x10x10mm
降伏點伸長率	50mm/min	9	%	DIN EN ISO 527-2	(4) Specimen 10x10x50mm, modulus range between 0.5 and 1% compression.
斷裂伸長率	50mm/min	32	%	DIN EN ISO 527-2	(5) For Charpy test: support span 64mm, norm specimen.
抗彎強度	2mm/min, 10 N	91	MPa	DIN EN ISO 178	(2)
彈性模數 (彎曲測試)	2mm/min, 10 N	2600	MPa	DIN EN ISO 178	
壓縮強度	1% / 2% / 5% 5mm/min, 10 N	20/35/68	MPa	EN ISO 604	(3)
壓縮模數	5mm/min, 10 N	2300	MPa	EN ISO 604	(4)
衝擊強度(Charpy)	max. 7.5J	150	kJ/m ²	DIN EN ISO 179-1eU	(5)
缺口衝擊強度(Charpy)	max. 7.5J	6	kJ/m ²	DIN EN ISO 179-1eA	
蕭氏硬度	D	82		DIN EN ISO 868	
熱特性	參數	值	單位	標準	註解
玻璃轉化溫度		-60	°C	DIN EN ISO 11357	(1) Found in public sources.
熔化溫度		166	°C	DIN EN ISO 11357	(2) Found in public sources.
使用溫度	short term	140	°C		Individual testing regarding application conditions is mandatory.
使用溫度	long term	100	°C		(2)
熱膨脹 (CLTE)	23-60°C, long.	13	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
熱膨脹 (CLTE)	23-100°C, long.	14	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	
比熱		1.4	J/(g*K)	ISO 22007-4:2008	
導熱係數		0.39	W/(K*m)	ISO 22007-4:2008	
電性特性	參數	值	單位	標準	註解
表面電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω	-	(1) Specimen in 20mm thickness
體積電阻	Silver electrode, 23°C, 12% r.h.	10 ¹⁴	Ω*cm	-	(2) Due to the black colourant and moisture uptake of the material the electrical insulation properties cannot be 100% guaranteed, despite single measurements suggesting otherwise.
介電強度	23°C, 50% r.h.	38	kV/mm	ISO 60243-1	(3) Specimen in 1mm thickness
耐電痕(CTI)	Platin electrode, 23°C, 50% r.h., solvent A	600	V	DIN EN 60112	
其他特性	參數	值	單位	標準	註解
吸水率	24h / 96h (23°C)	0.05 / 0.1	%	DIN EN ISO 62	(1) Ø ca. 50mm, h=13mm
耐熱水/鹼		(+)		-	(2) (+) limited resistance
耐候性		(+)		-	(3) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.
耐燃性(UL94)	corresponding to	HB		DIN IEC 60695-11-10;	(3)

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