

**Typical properties of Xydar® NC-301**

Properties	Unit	Method (ASTM)	NC-301
Tensile strength (3.2mmT) 抗拉强度	MPa	D638	136
Tensile Modules (3.2mmT) 抗张弹性率	GPa		17.0
Elongation (3.2mmT) 抗张伸展率	%		2.1
Flexural strength (3.2mmT) 弯曲强度	MPa	D790	185
Flexural modulus (3.2mmT) 弯曲弹性率	GPa		14.7
Poisson's ratio 泊松比	—	—	0.41
Izod impact strength (Un-notched) Izod 冲击强度 Unnotched - 无缺口	$\text{kJ/m}^2$	D256	49
Rockwell Hardness 洛氏硬度	R Scale	D785	108
Specific gravity 比重	—	D792	1.70
Water absorption 吸水率	%	D570	0.02
Deflection temperature under load (1.82Mpa) 热变形温度(1.82Mpa)	°C	D648	281
Thermal conductivity 导热系数	$\text{kcal/m}\cdot\text{hr}\cdot\text{°C}$	F433	0.340
Flammability rating (V-0 applied thickness) 难燃性 (V-0 取得済み)	mm	UL94	0.20
Oxygen index 氧指数	%	D2863	44
Dielectric strength 耐电强度	kV/mm	D149	46.0
Arc resistance 耐电弧	sec	D495	126

•Xydar is the registered trade mark of Solvay Specialty Polymers, USA

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Properties		Unit	Method (ASTM)	NC-301
Volume resistivity 体積抵抗率		X10 <sup>15</sup> Ω・cm	D257	16.0
Surface resistivity 表面抵抗率		X10 <sup>15</sup> Ω		20.3
Dielectric constant 誘電率	10 <sup>2</sup> Hz	—	D150	4.4
	10 <sup>6</sup> Hz	—		3.8
Dielectric dissipation factor 誘電正接	10 <sup>2</sup> Hz	—		N/A
	10 <sup>6</sup> Hz	—		0.029
Weld Strength 熔接強度		MPa	NOE original	39

**Coefficient of Linear Thermal Expansion (線膨脹係數)**

Unit:10<sup>-5</sup>cm/cm/°C

Grade	Direction*	Range of Temperature (溫度範圍) (°C)			
		50-100	100-150	150-200	200-250
NC-301	MD	0.4	0.4	0.2	0.1
	TD	5.2	6.5	7.6	8.4

Direction\* : MD= Machine Direction

TD= Transversal Direction

成形品 : 100mm x 100mm x 3mm 平板

**Molding shrinkage(成形收縮率)**

Unit:%

Grade	MD	TD
NC-301	0.02	0.48

Direction : MD= Machine Direction

TD= Transversal Direction

成形品 : 100mm x 100mm x 1mm 平板

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Molding Conditions (成形条件)

成形参数		Unit	NC-301 成形範囲	NC-301 推薦条件
温度 Temp [°C]	后段温度	°C	300~320	300
	中段温度	°C	320~350	340
	前段温度	°C	340~360	360
	喷嘴温度	°C	340~360	360
	模具温度	°C	40~120	80~120
射出壓力		MPa	30~120	20~80
射出速度		—	中~高速	中~高速
保持壓力		MPa	20~80	40~60
背压		MPa	3~10	3~5
初期開模速度		%	10 以下	5
冷卻時間		可能範圍內稍長		
干燥条件		Over 150°C; 8~24 hours		

1. 出现流涎时请将喷嘴温度降一些
2. 松退设定过大会较容易卷入空气，请注意
3. 请将残量设低（为防止材料热降解）
4. 冷却时间与计量时间的差较大的情况，推荐设定计量延迟时间
5. 由于固化速度相对较慢，冷却时间请多抓一些，并缓速开模

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