

## Elastever® E1081A

### Material Description:

Elastever® E1081A is a Thermoplastic Polyurethane Elastomer (TPU Polyester) material. Added features include: free from plasticizers, grease and oil-resistant, low compression set, high elasticity, good heat resistance, Easy release.

### General

Material Status	• Commercial: Active
Availability	• Asia Pacific
	• Europe
	• Middle East
Features	• North America
	• Latin America
	• Africa
Uses	• Good Mold Release
	• Grease Resistant
	• Oil Resistant
RoHS Compliance	• Automotive Applications
Processing Method	• Seals
	• Injection Molding
	• High Elasticity
	• High Heat Resistance
	• Low Compression Set
	• Membranes
	• Roller coating

Physical Properties	Typical Value	Unit	Test Method
Density			
23°C	1.2	g/cm <sup>3</sup>	ISO 1183
--	1200	kg/m <sup>3</sup>	ISO 1183 <sup>1</sup>

Hardness	Typical Value	Unit	Test Method
Shore Hardness			
Shore A, 1 sec, 23°C	81		ISO 7619
Shore D, 1 sec, 23°C	30		ISO 7619
Shore A, 3 sec	81		ISO 868 <sup>1</sup>
Shore D, 15 sec	30		ISO 868 <sup>1</sup>

Mechanical Properties	Typical Value	Unit	Test Method
Tensile Stress <sup>2</sup>			DIN 53504
Break, 23°C	38	MPa	
10% Strain, 23°C	2	MPa	
50% Strain, 23°C	5	MPa	
100% Strain, 23°C	7	MPa	
300% Strain, 23°C	12	MPa	
Tensile Strain <sup>2</sup> (Break, 23°C)	560	%	DIN 53504
Abrasion Resistance <sup>3</sup>	25	mm <sup>3</sup>	ISO 4649
Tensile Storage Modulus			ISO 6721
-20°C	108	MPa	
20°C	34	MPa	
60°C	30	MPa	

Elastomers	Typical Value	Unit	Test Method
Tear Strength <sup>3</sup> (23°C)	47	kN/m	ISO 34-1
Compression Set			ISO 815
23°C, 72 hr	23.5	%	
70°C, 24 hr <sup>4</sup>	27	%	
70°C, 24 hr <sup>5</sup>	18	%	
Rebound Resilience	49	%	ISO 4662

Injection	Typical Value	Unit
Drying Temperature	< 80	°C

Processing (Melt) Temp	225 to 235 °C
Mold Temperature	20 to 40 °C

## Notes

- <sup>1</sup> Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.
- <sup>2</sup> 200 mm/min
- <sup>3</sup> 500 mm/min
- <sup>4</sup> Method A
- <sup>5</sup> Method C

## CAUTION/警告!

Before using, read the Molding Guide, Material Safety Data Sheets, and Bulletins available from NFD Advanced Composites Sales offices and Distributors supplied to your company. Caution! During drying, purging and molding, small amounts of hazardous gases and/or particulate matter may be released. These may irritate eyes, nose and throat. Use adequate local exhaust ventilation during thermal processing. To prevent resin decomposition, do not contaminate the resin or exceed the recommended melt temperature or hold-up time. Avoid inhalation or skin and eyes contact. Sweep up and dispose of spilled resin to eliminate slipping hazard. 在使用之前, 请阅读NFD公司销售办事处和经销商提供给贵公司的材料成型指南、材料安全数据表和公告。警告! 在干燥、吹扫和成型过程中, 少量有害气体或颗粒物可能会在被释放, 这些可能会刺激眼睛, 鼻子和喉咙。热处理过程中请注意做好排气通风工作。为防止树脂分解, 请勿污染树脂或超过我们为您推荐的热熔温度或时间。请避免吸入或与皮肤、眼睛等接触。清扫和处理溢出的树脂, 以消除滑到的危险。

## LEGAL NOTICES/法律声明

The figures indicated here are approximate values. They may be affected by different factors, and the user is not released therefore from the obligation of performing checks and trials of his own. The values indicated here have been compiled on the basis of current tests and findings. Any legally binding guarantee of certain properties, or any suitability for a specific application can not be inferred from the present data. For detailed production regulatory information, contact customer service.

上列数据仅作参考用途, 它们可能会受不同因素的影响, 使用者有责任通过实验自行确定材料特性。上述资料根据现有测试得出, 对物料特性是否适合某特殊用途及特性不能给予保证, 数据也没有任何法律约束力。更多有关详细的产品监管信息, 请联系客户服务。

## COMPANY/公司:

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