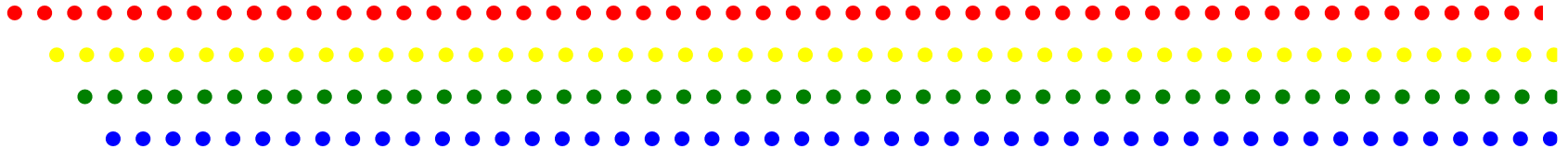


Techno MUH Series



**Super High Heat ABS grades for
Automobile Interior**



Techno Polymer America, Inc.

- We can do that. We are the producer next to you.-



'What Techno MUH ABS resins offer you'

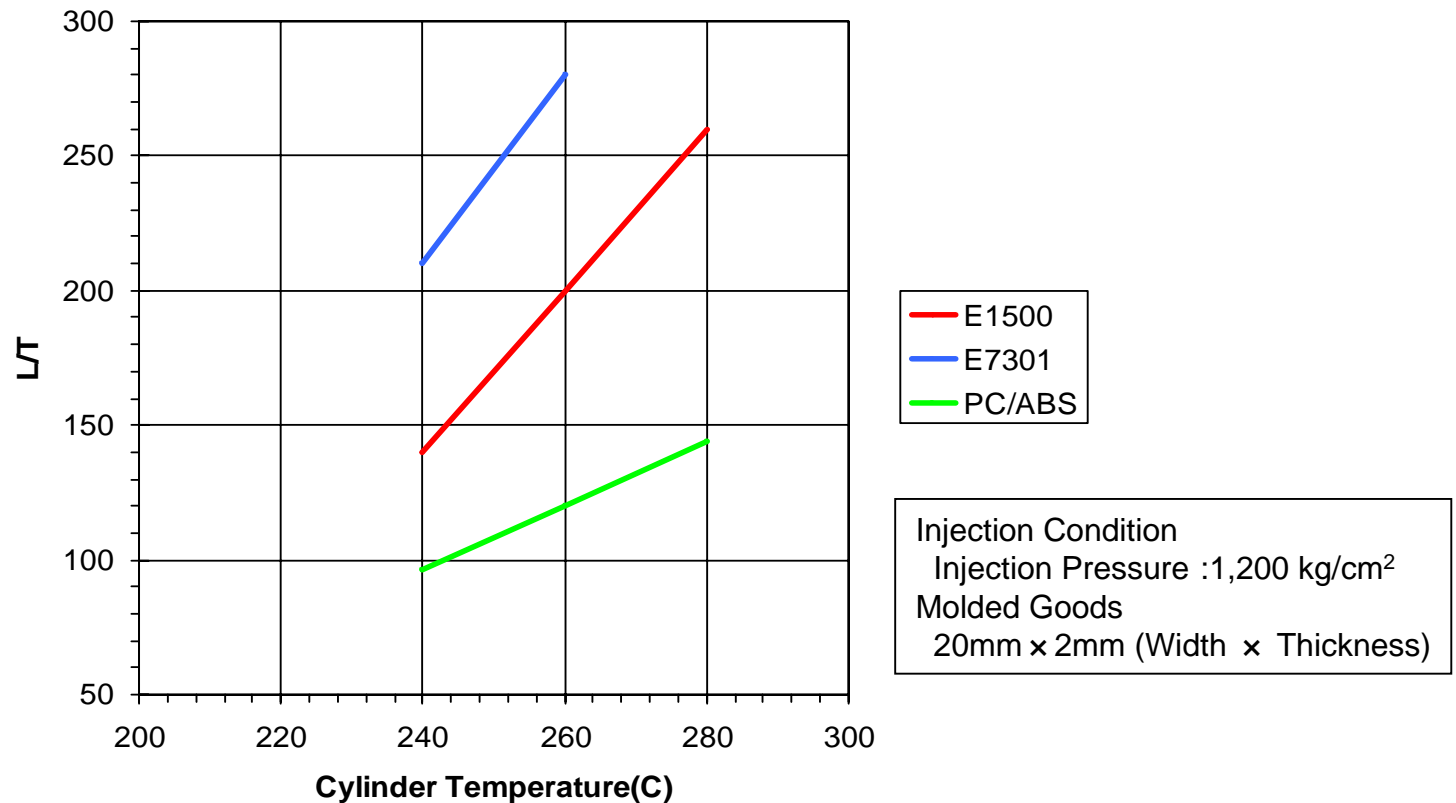
- Super high heat resistance comparable to PC/ABS resins, thus meeting automotive interior specifications
- Low specific gravity to reduce the weight of parts
- Superior mold-ability to enable greater design flexibility and reduced scrap
- Excellent chemical resistance against chemicals used in detergents, fragrances, and wax for fewer crack problems than in the case of PC/ABS
- A better material than PC/ABS for interior automobile applications that require a higher aesthetic appearance



Physical Properties of Techno MUH resins

Physical Properties	Test Method	Unit	Techno MUH E1500 Super High Heat	Techno MUH E7301 Super High Heat High Flow	PC/ABS In the Market
Tensile Strength	ISO 527	MPa	50	50	48
Flexural Strength	ISO 178	MPa	76	77	69
Flexural Modulus	ISO 178	MPa	2,410	2,330	2,100
Charpy Impact Strength	ISO 179	KJ/m2	10	11	48
Melt Mass Flow Rate (240C, 10kg)	ISO 1133	g/10min	8	16	8
Heat Deflection Temperature	ISO 75	C	99	95	102
Density	ISO 1183	-	1.05	1.07	1.15

Spiral Flow which testifies better mold-ability of Techno MUH

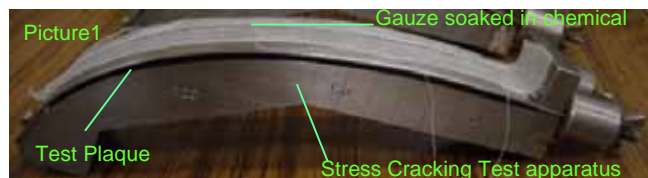


Chemical Resistance (Critical Strain Value)

Chemical	TECHNO MUH E1500	TECHNO MUH E7301	PC/ABS In the Market
10wt% Ethanol	>1.0 %	>1.0 %	0.61
Leather Wax	>1.0%	>1.0%	0.49
ARMOR ALL	0.8%	0.8%	0.27
automobile fragrance	0.8%	0.8%	0.33
Glass Cleaner detergent	>1.0%	>1.0%	0.28

Test Method

- 1) We set the test plaque (thickness 2mm) on stress crack testing apparatus to produce stress on it as picture1.
- 2) We applied chemical on the test plaque.
- 3) We observed the cracks on the plaques 24 hours after applied chemicals. (23C)



Indication of Critical Strain Value

Critical Strain Value	Practical issue predicted on your parts
more than 0.8 %	no problem
0.4 % - 0.7%	There could be crack problem under applied load or molding strain .
less than 0.3 %	There should be crack problems



Drying Condition (recommendation)

Techno MUH resins are hygroscopic. Pre-drying of Techno MUH pellet is necessary to achieve the best result. Insufficient drying temperature and drying time may cause poor appearance.

Drying Temperature	210 - 230 F
Drying Time	3-5 hours

Injection Molding Condition (recommendation)

	TECHNO MUH E1500 or E7301
Cylinder Temperature	445 - 520 F
Mold Temperature	100 – 160 F

The above condition is one of typical examples.

The conditions of Injection Molding to obtain the best result differ depending on the capability of Extruder.



Techno Polymer America, Inc.

- The best ABS plastics producer and service provider in America -

**If you have any question or wish to request a sample,
please feel free to contact us.**

Given the vast amount of accumulated ABS technical information and business experience on hand, our technical specialists are ready to respond to any of your requests or questions.



Techno Polymer America, Inc.

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***Notice**

Each numerical value shown in this sheets is a typical value based on the specified testing method.

The data and descriptions may be revised without notice based on new information.

Before handling the materials in this catalogue, refer to the material safety data sheet (MSDS) for complete details regarding handling and safety.

Do not inhale the generated gas when the material is processed. Adopt local vent system in the processing room.

The user of the material is responsible solely for the final determination of safety and suitability.

When using with specialized applications such as those for the medical devices, food devices, or toys for infant, please consult us in advance.