

## PEBAX®

### Pebax® 7233、7033、6333、5533、4033、3533

Pebax ナイロンは弾性復元力と低温特性に優れ、他の TPE に比べて破断伸び率の高い素材です。35 から 72 の Shore D 硬度が揃っており、幅広い機械的特性を発揮します。

#### 特性の概要

特性	ASTM テスト法	単位	Pebax® 7233	Pebax® 7033	Pebax® 6333	Pebax® 5533	Pebax® 4033	Pebax® 3533
比重	D792		1.02	1.02	1.01	1.01	1.01	1.01
吸水均衡(20°C、 50% RH以上)、 24時間浸漬	D570	%		0.64 0.83		0.05 1.2	0.05 1.2	0.05 1.2
硬度	D2240		72D	69D	63D	55D	40D	35D
極限抗張力	D638	Psi	6210	8300	8100	7300	5700	5600
極限伸び率	D638	%	360	400	300	430	390	580
曲げ弾性率	D790	Psi	107000	67000	49000	29000	13000	2800
アイソッド衝撃強度、 ノッチ付 20°C -40°C	D256	フィートポンド/ インチ	1.4 1.4	NB 0.95	NB 1.5	NB NB	NB NB	NB NB
耐磨耗性 H18/1000g	D1044	Mg/1000 サイクル	29	57	84	93	94	104
耐引裂性 ノッチ付	D624C	ポンド/インチ	1400	900	850	650	400	260
融点	D3418	°F	348	345	342	334	334	306
ビカー軟化点	D1525	°F	327	329	322	291	270	165
HDT 66Psi	D648	°F	223	208	194	151	126	115
圧縮永久ひずみ (24時間、71°C / 160°F)	D395A	%		6	6	10	21	54

注：全てのデータは Atofina Chemicals, Inc. の提供によるものです。特性は非顔料系・非充填樹脂の関連 ASTM-D テストを基準とします。

#### 市場応用分野:

- 電気およびエレクトロニクス
- 医療用カテーテル
- 梱包
- サブアセンブリー補助
- テキスタイル



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## OVERVIEW

Since its development in 1935, nylon has found a home in applications ranging from automotive and aerospace to life saving medical devices. Today the family of nylon resins has expanded to meet the demands of a wide range of custom applications.

Pebax® nylons have high elastic memory, better low temperature properties, and higher elongation at break than other thermoplastic elastomers. It is available with a Shore D hardness range from 35 to 72. This produces a broad spectrum of mechanical properties which make it perfect for catheter jackets; varying degrees of flexibility or stiffness as required.



Extruded Pebax® tubing in a variety of colors, sizes and durometers.



FLEXURAL MODULUS



MOISTURE ABSORPTION



BIOCOMPATIBLE

## APPLICATIONS

- Catheter jackets
- Sub-assembly aids
- Electrical and electronics
- Packaging
- Textiles

## PRODUCTS



- Extruded tubing
- Custom profiles
- Multi-Lumens
- Sub-Lite-Wall® tubing
- Monofilament






## KEY PROPERTIES


- Variable durometers (Shore D hardness 35 to 72)
- Low density
- Gamma sterilizable
- Bondable
- Tougher than Nylon 11
- USP Class VI approved material
- Low water absorption

3533, 4033, 5533, 6333, 7033, 7233

The information presented in this publication is believed to be accurate and is not intended to constitute a specification. Property characteristics are dramatically impacted by geometry and processing method, thus properties of extruded parts may vary. In some instances, data may not be available for publication and will be notated as "na" where applicable. These tables are meant to serve as a general guideline only. Users should evaluate the material to determine suitability for their own particular application.

PHYSICAL			PEBAX (Polyether Block Amide)					
			D72	D70	D63	D55	D40	D35
	Density (g/cc)	D792	1.01	1.01	1.01	1.01	1.00	1.00
	Water Absorption (%)	ISO 62-1	0.9	1.1	1.1	1.2	1.2	1.2

MECHANICAL			D72	D70	D63	D55	D40	D35
				Hardness, Shore D	D2240	61 - 69	61 - 69	58 - 64
	Ultimate Tensile Strength (MPa)	ISO 527 (1 or 3)	56	54	53	52	40	39
	Elongation at Break (%)	ISO 527 (1 or 3)	> 300	> 350	> 350	> 450	> 450	> 600
	Flexural Modulus (GPa)	D527	51 (Cond.)	39 (Cond.)	28.5 (Cond.)	16.5 (Cond.)	71 (Cond.)	18 (Cond.)
	Coefficient of Friction	ISO 178	513	390	285	170	77	21

THERMAL			D72	D70	D63	D55	D40	D35
				Melt Temp (°C)	ISO 12086	174	172	169