

## Medical TPEs for Latex-free Films

Medalist Thermoplastic Elastomer (TPE) compounds are used exclusively in medical and healthcare applications due to their high degree of purity (low level of extractables), biocompatibility, and optimal balance of economics and performance. Medalist TPEs present a major cost savings when used to replace latex rubber in the production of elastic films. Examples include therapy bands, tourniquets, strapping, and dental dams. High-performance Medalist TPEs mimic the elastic behavior of latex (Figure 1), while delivering similar properties like durability and tear strength. Medalist TPE films have the same look and feel as latex, but unlike latex films, are odor-free and non-allergenic.

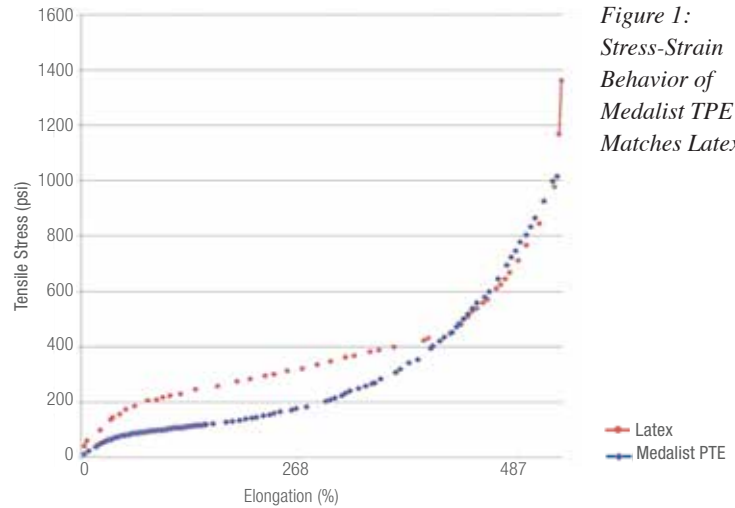


Figure 1:  
Stress-Strain  
Behavior of  
Medalist TPE  
Matches Latex

### Why Medalist TPEs for Latex Replacement?

- » Similar haptics and drape as Latex
- » High elasticity and elongation matching Latex
- » Better balance of price and performance
- » Odor free and non-allergenic
- » No curing agents, eliminating concerns of high levels of extractables
- » Colors with ease
- » Can be heat sealed
- » Ease of processing with excellent throughput rates
- » Can be slit

### Regulatory Compliance

- » Made with FDA food grade compliant ingredients
- » Biocompatible, ISO 10993-5 compliant
- » REACH SVHC Compliant
- » Free of DEHP, phthalates, BPA, and latex
- » Standard grades are ADM-free



### Tourniquets & Straps

- » Excellent puncture & tear resistance
- » Slip resistant
- » Smooth or textured surface
- » Easy to tie and untie

Table 1: Typical Properties of Medalist TPEs for Tourniquets & Straps

Typical Properties	Color	Specific Gravity	Hardness (5 sec del)	Compression Set at 23°C (%)	Brittle Point (°C)	100% Modulus (psi)	300% Modulus (psi)	Tensile Strength (psi)	Elongation (%)	Tear Strength (lbf/in)
<b>Medalist</b>	---	ASTM D792	ASTM D2240	ASTM D395	ASTM D746	ASTM D412	ASTM D412	ASTM D412	ASTM D412	ASTM D624
<b>MD-17340</b>	Opaque	0.9	40A	16	<-60	140	410	1700	620	230



## Therapy Bands & Sheeting

- » High elongation
- » Excellent puncture & tear resistance
- » Good elastic recovery

Table 2: Typical Properties of Medalist TPEs for Therapy Bands & Sheeting

Typical Properties	Color	Specific Gravity	Hardness (5 sec del)	Compression Set at 23°C (%)	Brittle Point (°C)	100% Modulus (psi)	300% Modulus (psi)	Tensile Strength (psi)	Elongation (%)	Tear Strength (lbf/in)
<b>Medalist</b>	---	ASTM D792	ASTM D2240	ASTM D395	ASTM D746	ASTM D412	ASTM D412	ASTM D412	ASTM D412	ASTM D624
<b>MD-10233</b>	Translucent	0.9	33A	12	<-60	120	350	1720	760	210
<b>MD-13240</b>	Translucent	0.9	40A	13	<-60	230	550	1480	630	215



## Dental Dams

- » Good elasticity
- » Excellent puncture & tear resistance
- » Extremely soft for added comfort

Table 3: Typical Properties of Medalist TPEs for Dental Dams

Typical Properties	Color	Specific Gravity	Hardness (5 sec del)	Compression Set at 23°C (%)	Brittle Point (°C)	100% Modulus (psi)	300% Modulus (psi)	Tensile Strength (psi)	Elongation (%)	Tear Strength (lbf/in)
<b>Medalist</b>	---	ASTM D792	ASTM D2240	ASTM D395	ASTM D746	ASTM D412	ASTM D412	ASTM D412	ASTM D412	ASTM D624
<b>MD-10308</b>	Clear	0.9	8A	11	<-60	30	60	615	800	90

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