PFD 热塑产品的优点

- **Highly Abrasion Resistant 耐磨性好**
  - Additional Hose Guards not Required 不需要额外的护套保护
  - Reduced Hose to Hose Failure 降低软管失效的可能
- **Long Length Capabilities 连续长度很长**
  - Less Scrap Generated During Assembly 装配过程中很少废料产生
  - Fewer Potential Leak Points/Connections 减少潜在的泄漏点
- **Light Weight 重量轻**
  - Strength to Weight Ratio Greater than Rubber Equivalent 与相等重量的橡胶比，热塑产品强度更高
  - Reduced Total Equipment Weight 减轻设备总重量
  - Easier to Handle & Route on Equipment 便于在设备上布置管路
- **Electrically Non-conductive 不导电（绝缘性）**
  - Permits Safe Operation of Hydraulic Equipment and Tools on and Around Areas Where High Voltage Exposure and Contact May Occur (Prevents Grounding of Electrical Current) 操作设备时更安全
- **FDA Approvals (Food Contact & Potable Water) FDA认证**

PFD 热塑管的优点

- **Color & Marking Flexibility (Jacket & Lay-line) 表面颜色和标记的多样性**
  - Color Code Equipment & Applications 在设备上提供颜色标识
  - Vivid Colors to Match Customer Demand 可根据客户需要选择颜色
  - Private/Custom Lay-line for MRO Opportunities (Lay-line can Include Customer Logo) 可提供客户定制的软管表面标记（如客户的LOGO）
- **Cleanliness 清洁**
  - Mandrel Free Construction therefore NO Lubricant Contamination 加工时不需心轴，因此不会被润滑剂污染
  - Little to No Contamination from Cutting – Fiber Reinforced Product Does not Require Hose Saw 切割过程几乎不会被污染—纤维增强产品不用软管切割机
- **Chemical Compatibility 化学兼容性好**
  - One Product for Multiple Applications 一种产品能适用于多种应用
  - Limits Need for Higher Price Alternatives such as PTFE (Teflon®) 如PTFE（特氟龙）产品，其被替代的可能性小
- **Low-Elongation Fiber Reinforcement 纤维加强产品延伸率低**
  - Low Volumetric Expansion – Ideal for Applications Requiring Quick Response 低膨胀率，非常适合用于需要快速反应的应用
- **Corrosion Resistance 耐腐蚀**
  - Fiber Reinforcement will not Corrode, Making Product Suitable for Application in and around Water 纤维加强层即使在水中也不会被腐蚀

Why Thermoplastic?

Thermoplastic

What is thermoplastic?

A **polymer** that becomes pliable or moldable above a specific temperature and returns to a solid state upon cooling.

Elastomer (rubber)

What is an elastomer?

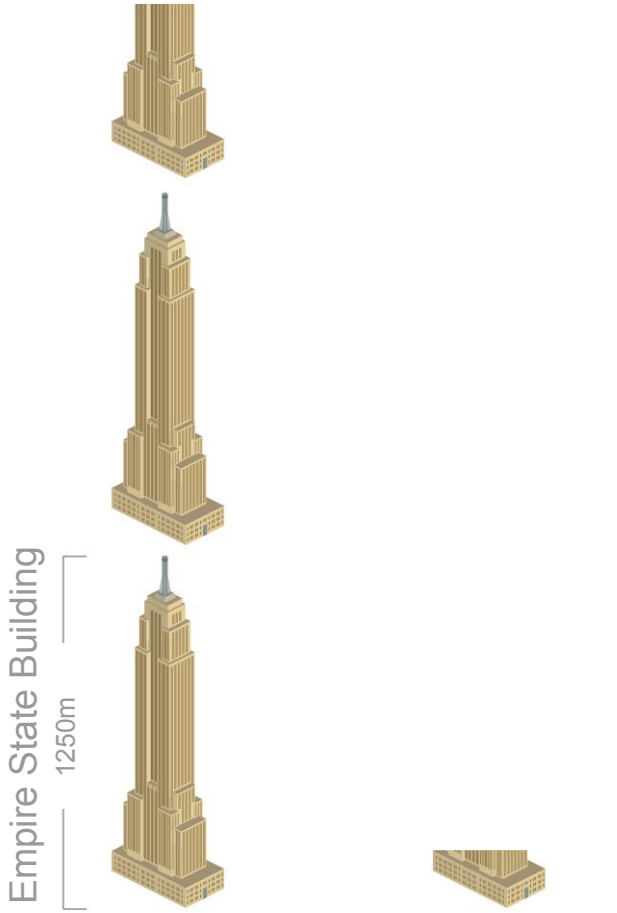
Any type of artificial **elastomer** mainly synthesized from petroleum by-products. An elastomer is a material with a mechanical (or material) property that can undergo much more elastic deformation under stress than most materials and return to its previous size without permanent deformation.

Uses in everyday life

Fluoropolymers and **thermoplastics** play a crucial role in many of the products and services we depend on in our daily lives – yet, most of us don't realize it.

Elastomer (rubber) in everyday life.

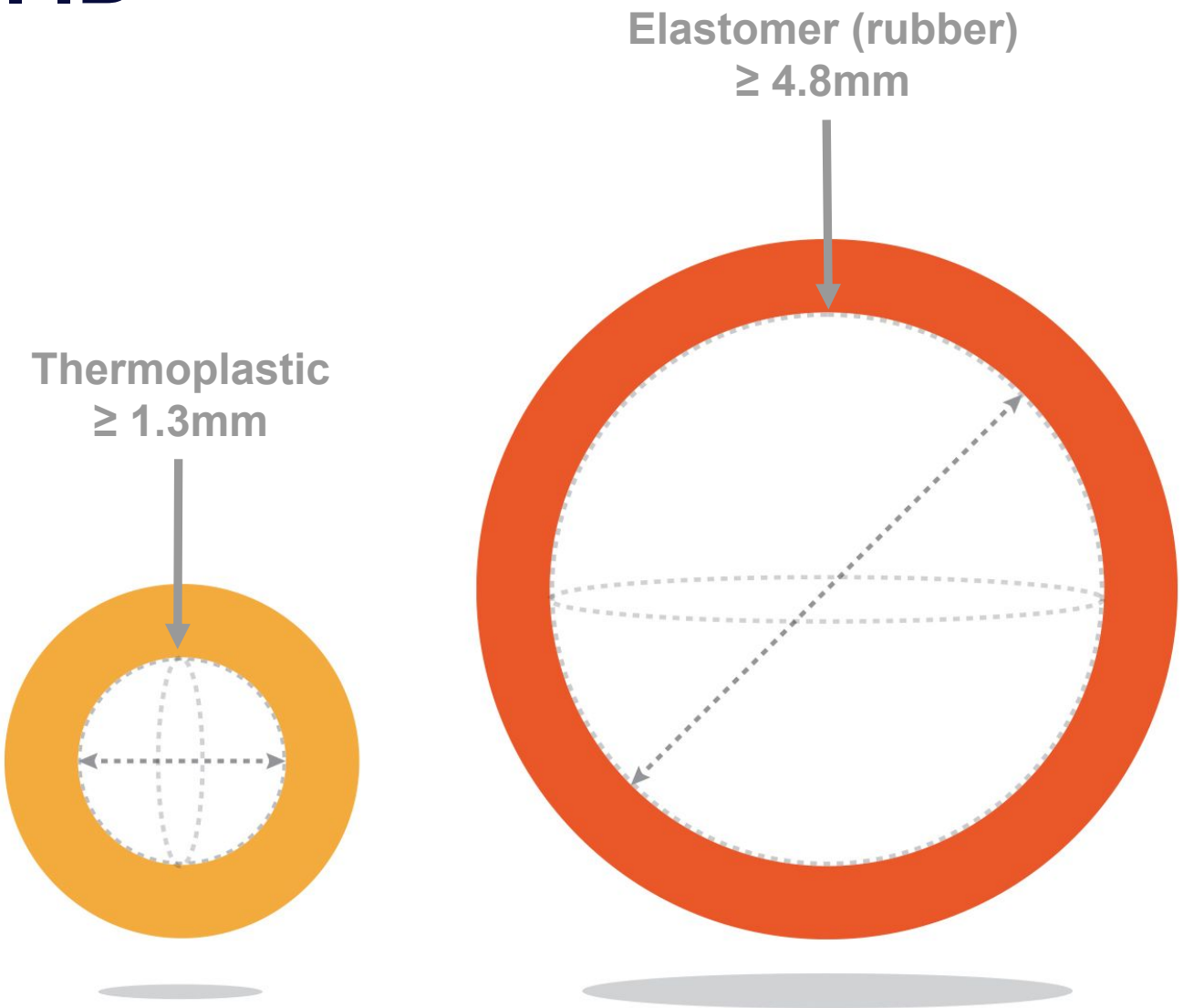
Continuous Length



Thermoplastic
≥ 3200m

Elastomer
(rubber)
≥ 60m

Small ID



Compact OD

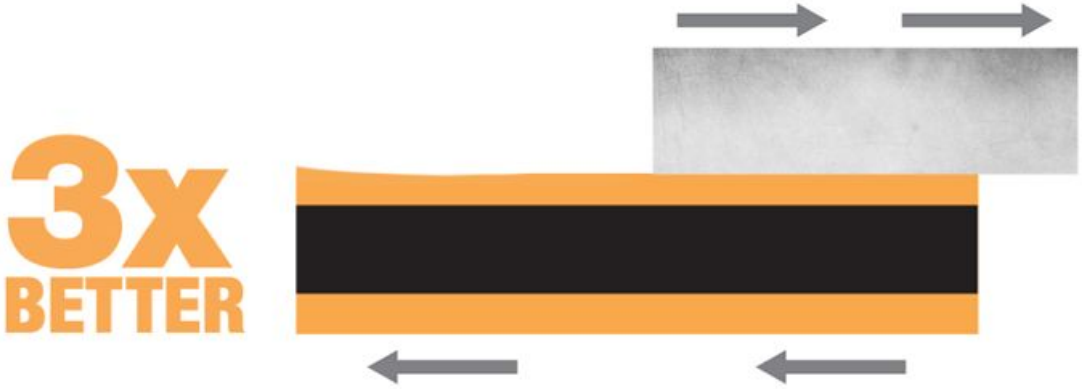
Thermoplastic

Elastomer (rubber)

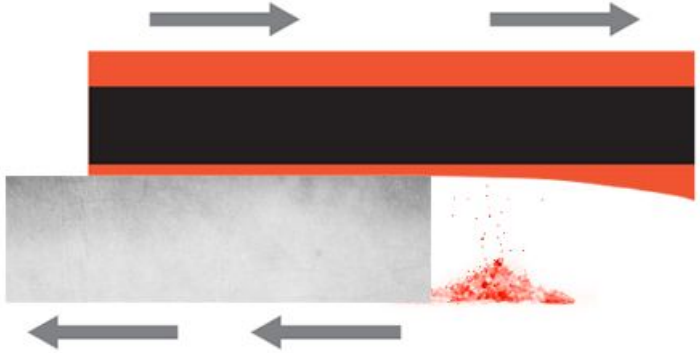
~ 20%
IMPROVEMENT

Abrasion

Thermoplastic Cover



Rubber Abrasion-Resistant Cover



Weight (per foot)

~70%
WEIGHT REDUCTION

Thermoplastic

Elastomer (rubber)

Cleanliness

Thermoplastic

Elastomer
(rubber)

Permeation Resistance

	CO_2	O_2 (ingression)	N_2
Thermoplastic	1	–	0.07
Rubber	10	3.6	0.35

Working Pressure

Thermoplastic

4000 bar

Elastomer (rubber)

700 bar

Shelf Life

∞

Thermoplastic

10 YEARS

Elastomer (rubber)

Per SAE J517, Rubber Hose, in bulk form or in hose assemblies passing visual inspection and proof test, shall be acceptable for use up to and including 40 quarters (10 years) from the date of manufacture. Shelf life of thermoplastic and polytetrafluoroethylene hose is considered to be unlimited.

Added Value

Thermoplastic

Elastomer (rubber)

- Thermal Forming
- Color Coding
- Custom Laylines
- Bonding
- Conductive/Nonconductive

Noise Reduction

Thermoplastic