

TPE 210-S

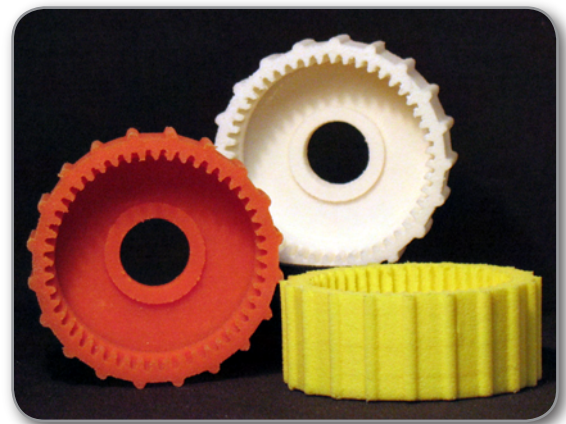
Soft Thermoplastic Elastomer



Engineered Materials For Rapid Manufacturing

“A soft elastomer material specially formulated to produce abrasion resistant parts with high tear strength and good surface definition.”

- **Very soft elastomer with high abrasion resistance useful in many applications – including seals, fittings, and hoses.**
- **Compatible with many infiltrants and sealants to optimize final part properties for many varied applications.**
- **Superior feature definition allows for more intricate designs.**



Advanced Laser Material's TPE 210-S material is engineered to produce flexible, functional parts closely mimicking soft rubber.

TPE 210-S produces strong parts with superior feature definition and surface finish compared to other soft elastomers. TPE 210-S parts can also be infiltrated with a wide range of liquid resins, allowing the manufacturer to control the level of hardness and strength of the final part, as well as dye the finished parts a wide range of colors.



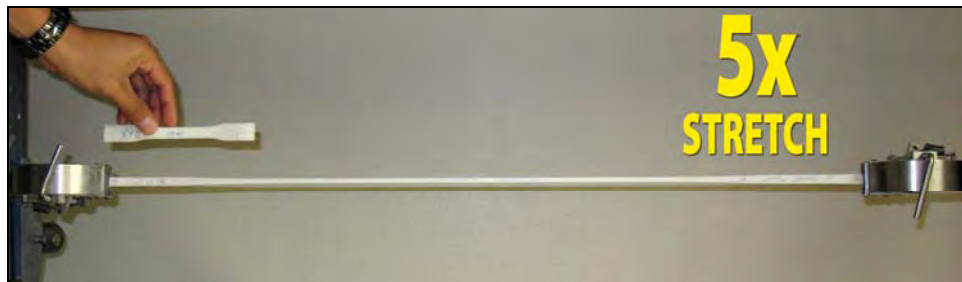
TPE 210-S is an excellent material for producing seals, fittings, and flexible hoses. TPE 210-S parts can also be made with a very soft feel that closely mirrors skin like texture, making the material a solid candidate for bio-medical applications.

TPE 210-S is manufactured to a high quality standard and every shipment of TPE 210-S is delivered with detailed quality control measurements.



TPE 210-S Data Sheet

| MATERIAL PROPERTIES | TEST | TPE 210-S |
|---|---|---------------------------------|
| Density, Bulk | ASTM D1895 | 0.37 g/cc |
| Particle Size | | |
| | d90 Laser Diffraction | 90 – 130 µm |
| | d50 Laser Diffraction | 75 – 85 µm |
| | d10 Laser Diffraction | 20 – 40 µm |
| Specific Gravity (20 °C) | ASTM D792 | 1.03 g/cc |
| THERMAL PROPERTIES | TEST | TPE 210-S |
| Melting Point | ASTM D3418 | 178 °C |
| Melt Flow Rate (180 sec., 2.16kg, 190 °C) | ASTM D1238 | 15.5 g/10 min |
| TYPICAL PART PROPERTIES | TEST | TPE 210-S |
| Tensile Modulus | ASTM D 638 | 4.8 – 8.3 MPa 700 – 1200 psi |
| Tensile Elongation to Break | | 90 – 250 % |
| Initial Tear Resistance | | |
| | Die C, 23 °C ASTM D 1004 | 33 N |
| Abrasion Resistance | | |
| | Taber, H-18 wheel, 1kg load ASTM D 4060 | 535 mg/1000 cyc |
| Hardness, Shore "A" | 23 °C ASTM D 2240 | 40-60 |



Warranty/Disclaimer: Actual part properties may vary significantly from those listed above based on processing parameters, operating conditions, and material usage. Advanced Laser Materials, LLC makes no warranties of materials for any particular application, nor does it make a warranty of any type, expressed or implied, including, but not limited to, the warranties of merchantability for a particular purpose.

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