

Urethane Casting Materials //

Rigid Materials

MATERIAL	SHORE VALUE	COLOR OPTIONS	NOTES	RECOMMENDED PRODUCTION METHOD AFTER PROTOTYPING
ABS-Like	85 D	Can be Tinted for Near Pantone Match or Painted for Exact Match	Common Material Choice and Least Expensive	Cast Urethane Injection Molding
UL94V0 Rated	74 D	Can be Tinted for Near Pantone Match or Painted for Exact Match	UL94V0 Rated Material Meets Specified Flammability Standard	Cast Urethane Injection Molding
Polypropylene-Like	80 D	Can Be Colored for Near Match to Pantone	--	Cast Urethane Injection Molding
High Temp	80 D	Light Tints are Very Difficult as Resin Is Naturally an Off White	Glass Transition (Tg) at Over 120°C	Cast Urethane Injection Molding
Clear High Temp	87 D	Clear Only; Can be Polished to Water Clear	Requires a High Polish to Achieve Water Clear Finish, Glass Transition (Tg) at 110°C	Cast Urethane Injection Molding

Soft Materials

MATERIAL	SHORE VALUE	COLOR OPTIONS	NOTES	RECOMMENDED PRODUCTION METHOD AFTER PROTOTYPING
Silicone	30A - 50A	Can be Colored for Near Match to Pantone	Cannot Paint	Compression Molding or Liquid Silicone Injection Molding
Rubber-Like	30A - 90A	Can be Colored for Near Match to Pantone	Cannot Paint	Injection Molding, Compression Molding or Liquid Silicone Injection Molding
Clear Rubber-Like	30A - 80A	Clear, Can be Tinted to Achieve Transparency	Clear, Cannot be Painted	Injection Molding, Compression Molding or Liquid Silicone Injection Molding