



Technical Brief

TEMPERATURE

What is the best lens material for your instrument?

Glass lenses are standard for most instruments and work well for general applications. However, there are applications where standard glass isn't ideal, and an alternative material will be recommended. Here are some guidelines:

Operating temperature limits for the instrument body (not the process temperature):

- 200°F (93°C) for glass lenses
- 150°F (65°C) for plastic lenses
- 150°F (65°C) for silicone filled thermometers



Optional lens materials and application notes:

- Tempered glass - Improved to withstand a broad range of temperature changes; more impact resistant than regular glass
- Shatterproof laminated safety glass - High corrosion resistance; plastic laminate between two pieces of glass will hold fragments in place if broken but laminate will start to deteriorate above 200°F
- Acrylic plastic - Fair chemical resistance but low temperature limit
- Polycarbonate plastic - Higher temperature limit than acrylic but limited chemical resistance
- UV effects - Both the polycarbonate plastic and the acrylic plastic materials are UV stabilized materials, which means the yellowing is delayed but can still happen over a long period of time
- Silicone filled instruments (used for additional vibration dampening) - Polycarbonate plastic is standard on silicone filled thermometers; shatterproof glass is available upon request

To find out which lens material is best for your applications, feel free to call our experts at 800-232-5335 or visit <https://www.teltru.com>.



Tel-Tru Manufacturing Company

408 St. Paul Street, Rochester, NY 14605

Phone: 800.232.5335 • 585.232.1440 • Fax: 585.232.3857 • E-mail: info@teltru.com • Web: www.teltru.com

TB1118
©2018