

Tensile Test Report

Test Information

| | |
|------------|--------------------|
| Sample ID: | N/A |
| Material: | N/A |
| Grade: | N/A |
| Standard: | ISO 527 - Plastics |
| Date: | 2025-12-08 |
| Operator: | N/A |
| Customer: | N/A |

Specimen Dimensions

| | |
|---------------------|----------------------|
| Specimen Type: | Type 1A |
| Gauge Length: | 50.0 mm |
| Thickness: | 4.0 mm |
| Width: | 10.0 mm |
| Cross-Section Area: | 40.0 mm ² |
| Grip Distance: | 115.0 mm |

Mechanical Properties

| Property | Symbol | Value | Unit |
|---------------------------|----------------|--------|------|
| Ultimate Tensile Strength | σ_{UTS} | 6.44 | MPa |
| Yield Strength (Rp0.2) | σ_y | 4.63 | MPa |
| Young's Modulus | E | 40.0 | MPa |
| Elongation at Break | ϵ_b | 50.00 | % |
| Maximum Force | F_max | 80.94 | N |
| Force at Yield | F_y | 80.41 | N |
| Energy to Break | U_b | 1.4548 | J |

Test Conditions

| | |
|----------------|----------------------|
| Control Mode: | Displacement Control |
| Test Speed: | 10.0 mm/min |
| Temperature: | 23.0 °C |
| Humidity: | 50.0 % RH |
| Data Points: | 1274 |
| Test Duration: | 26.2 s |

Tested by

Approved by