

# Tensile Testing for 3D Materials Load Cell

## Industry: Test and Measurement

### Summary

#### Customer Challenge

A customer wants to conduct a tensile force test on different 3D printing materials until failure. These different 3D printing materials being tested included PLA, PETG and ASA to see how it performed. The customer wanted to test the materials quality, strength, ductility, and stiffness.

#### Interface Solution

Interface's 1200 Standard Precision LowProfile™ Load Cell is installed into the customer's test frame. The tensile test is conducted, and force results captured by the load cell are synced through the INF-USB3 Universal Serial Bus Single Channel PC Interface Module. These results can be displayed on the customer's PC with supplied software.

#### Results

With Interface's force products, the customer was able to determine and test the different categories for each type of 3D printing materials.

### Materials

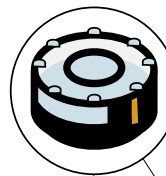
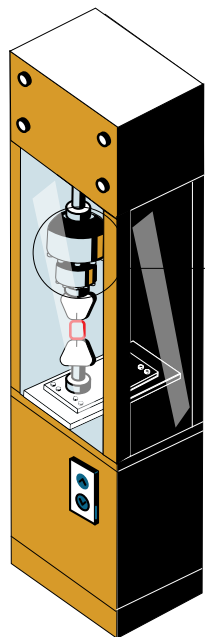
- 1200 Standard Precision LowProfile™ Load Cell
- INF-USB3 Universal Serial Bus Single Channel PC Interface Module with supplied software
- Grips
- Customer tensile test load frame
- Customer PC or Laptop

### How It Works

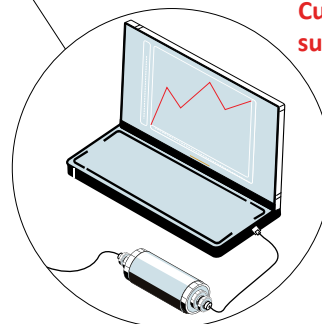
1. The 1200 Standard Precision LowProfile™ Load Cell is installed into the customer's tensile test load frame.
2. Different 3D material samples are tested and the force data is collected.
3. The data collection is captured by the INF-USB3 Universal Serial Bus Single Channel PC Interface Module, and can be displayed when connected to the customer's PC with the supplied software.

#### Tensile Test Load Frame

#### 3D Material



1200 Standard Precision LowProfile™ Load Cell



Customer PC with supplied software

INF-USB3 PC Interface Module