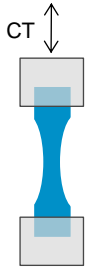


# Summary of the most commonly used test methods

## Part 9 - implant materials



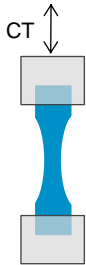
Acrylic bone cement materials  
 Dynamic compression-tension (D-CT)

### ASTM F2118 (ISO 16402)

Standard Test Method for Constant Amplitude of Force Controlled Fatigue Testing of Acrylic Bone Cement Materials

*Scope*

Constant amplitude, uniaxial, tension-compression uniform fatigue performance of acrylic bone cement materials



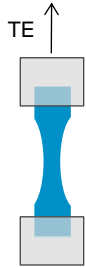
Metallic materials  
 Dynamic compression-tension (D-CT)

### ASTM E466

Standard Practice for Conducting Force Controlled Constant Amplitude Axial Fatigue Tests of Metallic Materials

*Scope*

Axial force controlled fatigue tests to obtain the fatigue strength of metallic materials



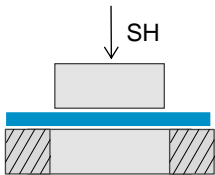
Plastic materials  
 Static tension (S-TE)

### ASTM D638

Standard Test Method for Tensile Properties of Plastics

*Scope*

Tensile property data for the control and specification of plastic materials



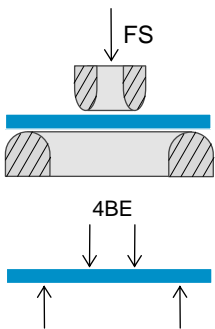
Plastic materials  
 Static shear (S-SH)

### ASTM D732

Standard Test Method for Shear Strength of Plastics by Punch Tool

*Scope*

Shear strength obtained by the use of punch-type tooling



Ceramic materials  
 Static flexural strength (S-FS)  
 Static four-point-bending (S-4BE)  
 Dynamic four-point-bending (D-4BE)

### ISO 13356

Implants for surgery -- Ceramic materials based on yttria-stabilized tetragonal zirconia (Y-TZP)

*Scope*

Characteristics of a ceramic bone-substitute material based on yttria-stabilized tetragonal zirconia (yttria tetragonal zirconia polycrystal, Y-TZP)

For further information also regarding additional test methods not covered by this summary please contact:

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