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# Composites Test Fixtures | Flatwise Tensile Strength, ASTM C 297

ASTM C 297 describes a method of determining the bond strength between the facing and core of a sandwich core panel or the strength of the core itself, if the bond strength between the facing and the core is sufficiently strong. The specimen is bonded to thick loading blocks and then subject to tensile loading applied via the blocks.


## Principle of Operation

Each half of the fixture incorporates a dual flexible yoke to ensure that pure axial load is applied to the specimen. The fixture is supplied with five (5) sets of aluminium loading blocks that are grit blasted and hard clear anodized. The fixture can be used to test a variety of different sandwich core materials including honeycomb core structures and continuous core structures, such as foam or balsa wood.

## Features

- Conforms to ASTM C297
- Double yoke design provides self-alignment
- Suitable for 2-inch square specimens
- Suitable for non-ambient temperatures

## Specifications

| | | |
|---|---|---|
| Catalog Number | - | S4683A |
| Test Standard | - | ASTM C 297 |
| Maximum Load | kN | 30 |
| | kgf | 3,000 |
| | lbf | 6,600 |
| Temperature Range | °C | -70 to +250 |
| | °F | -94 to +482 |
| Specimen Size | mm | 50 × 50 |
| | in | 2 × 2 |

**Mechanical Connection**

| | | |
|---|---|---|
| Upper Interface | - | ½ in clevis pin (type Dm) |
| Lower Interface | - | ½ in clevis pin (type Dm) |
| Grip Body Material | - | Stainless steel |
| Bond Face Material | - | Aluminium (grit blasted and anodized) |
| Weight (Approximately) | kg | 3.5 |
| | lb | 7 |

## Spare Bonding Faces

| | | |
|---|---|---|
| Catalog Number | - | Consult Factory |
| Description | - | Extra set of bonding faces (5 off) |

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