

Instron 5985 (± 100 kN)



Overview

- ± 100 kN extra-height, floor standing servo-electric universal test, primarily used for medium-high load measurements. Fitted with an environmental test chamber & extended hydraulic wedge-action grips facilitating measurements at non-ambient conditions

Applications

Product/service	Loading modes	Main Uses	Materials
<ul style="list-style-type: none">• Mid load range mechanical testing (non-ambient)• Training	<ul style="list-style-type: none">• Compression• Tension• Flexure• Shear• Tear• Peel• Puncture	<ul style="list-style-type: none">• Quasi-static tests• Non-ambient materials characterisation	<ul style="list-style-type: none">• Composites• Polymers• Coatings• AM• Metals

Recent use cases

- Characterisation of the end-loaded compression properties of unidirectional pultruded carbon fibre composites at -40°C , room temperature and $+70^{\circ}\text{C}$; generation of design allowable data for customer
- Mechanical measurements of printed circuit board (PCB) materials at -25°C , room temperature and $+100^{\circ}\text{C}$; determination of tensile modulus for input to predictive modelling
- Characterisation of the mode I fracture toughness of adhesively bonded metallic material systems down to -100°C ; validation of bondline mechanical performance at low temperatures