

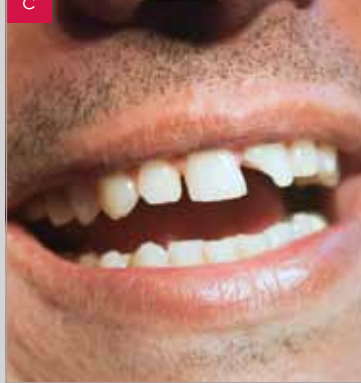
DENTAL MATERIALS & IMPLANTS



Dental adhesives, amalgams, porcelains, polymers and ceramics undergo testing in vitro to determine their performance for use in restorative and prosthetic dentistry. Dental implants are fatigue tested to determine their long term performance when implanted within the oral cavity. Here are a small sample of our solutions for testing of dental materials and implants.

Photo (right) Instron®'s ISO 14801 dental implant test system utilizes an ElectroPuls™ all-electric dynamic test instrument





a Shear bond strength of dental adhesives to ISO/TS 11405

b Alignment is critical for the successful measurement of tensile bond strength of dental materials to ISO/TS 11405

c Compression fixture designed to determine mechanical properties associated with cuspal fracture

d Flexural properties of dental ceramic materials for use in restorations and prostheses can be evaluated to ISO 6872



A 3-point submersible bend fixture is used to evaluate base polymers to ISO 20795 or cements to ISO 9917



A 30 ° fixed angle fixture is used for testing of straight endosseous dental implants to ISO 14801



Dental implants are tested to ISO 14801 within a saline bath on ElectroPuls dynamic instruments to evaluate effects of corrosion fatigue



Pre-angled dental implants can be tested using a variable angle fixture within a fluid bath to ISO 14801

Instron® – A Total Solution Provider



The Instron range of testing systems provides extensive capability; 3300 and 5900 electromechanical machines offer static tests, whereas ElectroPuls™ all-electric dynamic test instruments perform quasi-static, cyclic and high-frequency fatigue tests

Medical Sectors

BIOMATERIALS AND
TISSUE ENGINEERING



ORTHOPAEDICS



MEDICAL
CONSUMABLES
AND EQUIPMENT



IMPLANTABLE
DEVICES



PHARMACEUTICAL



Bluehill® and WaveMatrix™ Software

Instron's instruments and technologies are used for various types of tests across many diverse medical sectors. With ISO 9001 accreditation, our goal is to provide the best ownership experience by delivering the highest quality products, expert support, and world-class service. This includes support services such as IQ/OQ and products to help comply with 21 CFR Part 11.

Global Support That is Local to You

Founded in 1946, Instron is the leading supplier of materials testing equipment and solutions. Operating with 25 offices, including three state-of-the-art manufacturing facilities, in 18 countries, and more than 1200 employees, we have a global infrastructure that is local to you.

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