



UniTek® Model IT30 Dual Digital

UNITEK UniTek Products
by CCSi

CCSi features this reliable digital Charpy / Izod Impact Tester for the determination of the resistance of plastics and metals to breakage by flexural shock as indicated by the energy extracted from the beam arm apparatus employing an adjustable combination cantilever—pendulum beam arrangement for performing both Charpy and Izod Tests ([ASTM D256](#), [ASTM D1822](#), [ASTM D4508](#), [ASTM D4812](#), [ASTM D6110](#) and [ASTM E23](#)).


The tests require specimens made with a milled notch, hence the test is often referred to as the “notched bar impact test”. In both the Charpy and Izod Tests, the notch produces a stress concentration which promotes a brittle, rather than a ductile, fracture.

The results are reported in terms of energy absorbed per unit of specimen width, or more specifically, the energy absorbed in breaking the specimen which is equal to the difference between the potential energy at the moment of impact and the residual energy.

The beam arm is supported by a positive locking, self indexing, mechanism which is released by the operating lever. The IT30D features two starting positions, the uppermost for the Charpy Test and the lower position for performing the Izod Test. The beam arm is mounted in frictionless bearings, providing high levels of reproducibility and repeatability.

The IT30D is easily converted for either Izod or Charpy testing. Once configured, the test type is selected from the operating console. On completion of the test cycle, the energy utilized to break the specimen is clearly indicated on the large electronic digital display.

The operator is protected by an integral frame-style safety guard and the beam arm employs a a braking arrangement to cease the pendulum motion after specimen rupture.

 Index Terms: impact resistance; Izod impact; notch sensitivity; notched specimen; reverse notch impact; 29.035.20; electrical insulating solids; plastics (general); tension (tensile) properties/tests-plastics; tensile-impact energy to break plastics/electrical materials; D1822M; breaking energy; cantilever impact; chip impact strength; impact plastics; impact testing; microcracks; pendulum; plastics; small specimen impact; weathered impact strength; 83.080.01; cantilever beam; impact resistance; plastic molding; unnotched; charpy impact; impact resistance; notched specimen; charpy test; fracture appearance; Izod test; impact test; notched specimens; pendulum machine; 77.040.10.

UniTek™ Charpy/Izod Impact Tester Model IT30 Digital: Specifications

Charpy/Izod Impact Tester Model IT30 Digital		
Model:	IT30D Dual Digital	
	Charpy	Izod
Capacity:	300 J	170 J
Resolution:	0.5 J	0.5 J
Striking Velocity:	5 – 5.5 m/s	3 – 4 m/s
Accuracy:	0.5% of maximum impact energy	
Optional Accessories:		
<ul style="list-style-type: none"> ● Caliper Gauge (for checking specimen 'V' notch); ● Templates (for checking specimen cross section); ● Depth Notch Gauge (for checking 'V' & 'U' angle and radius); ● Izod Support for 11.4 mm Ø Izod 'rounds'; ● Self Centering Tong (centers Charpy specimen); ● 'V' Notch Milling Cutter; ● 'U' Notch Milling Cutter. 		
List Price:	Please Submit a Request for Quotation (RFQ)	

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