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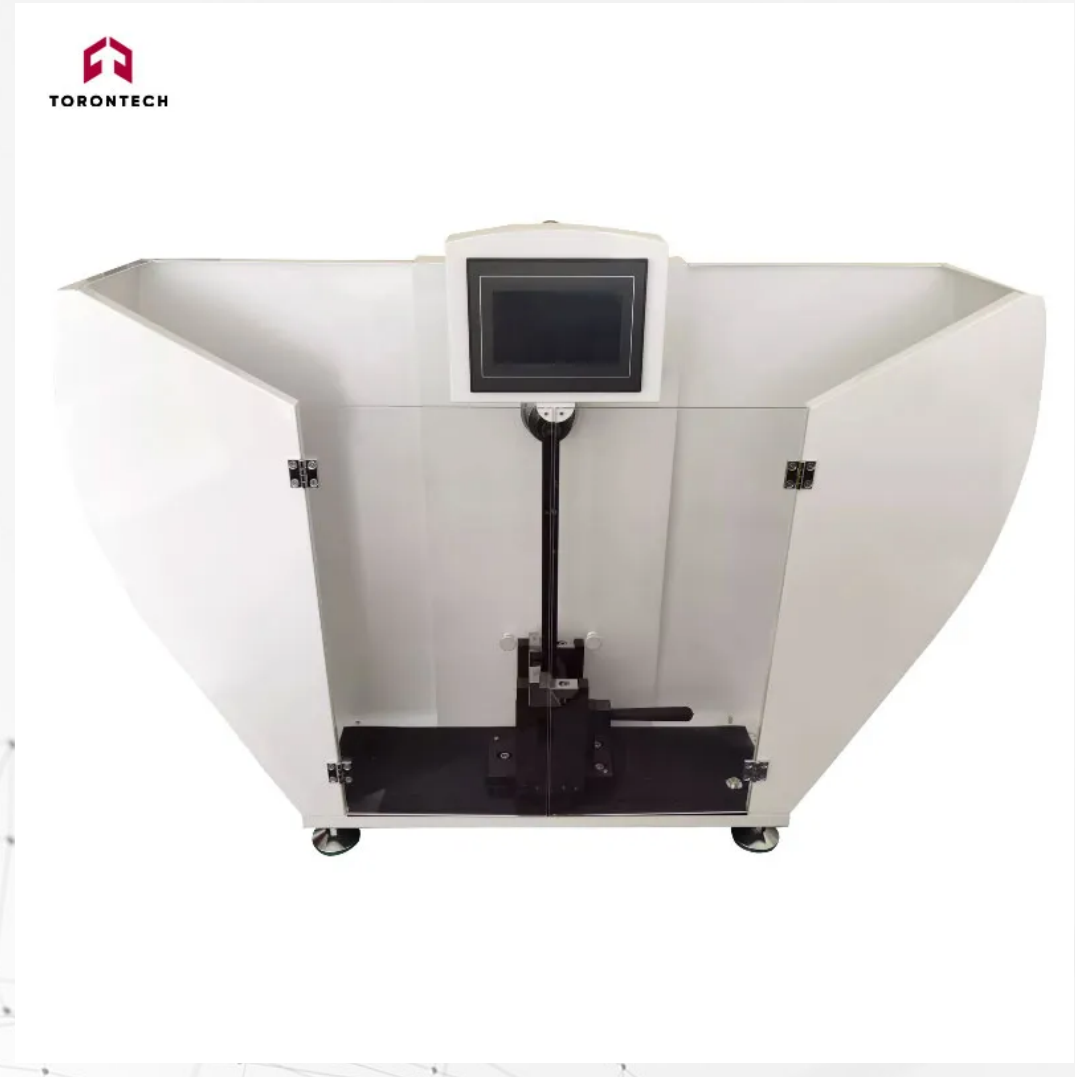

TORONIMPACT™ 50
CHARPY - IZOD IMPACT TESTER 50J

Uncover impact strength of rigid plastic materials with precision and efficiency. This specialized Charpy/Izod Impact Tester with interchangeable hammers adheres to ISO 179 Part 1, ISO 180, ASTM D256 standards, conducting non-instrumented and Izod impact tests to reveal fragility characteristics and estimate brittleness or impact strength.

With adjustable impact speeds and energies, a traditional high-mass pendulum design, precise angle measurement, and user-friendly touchscreen control, this advanced Charpy / Izod Impact Tester for plastics ensures accurate results by automatically correcting for energy loss.

APPLICATIONS

Application

The Charpy Impact Tester 50J, a specialized instrument, is used to conduct resilience tests on rigid plastic materials to determine their impact fragility characteristics under standard stress conditions. The test method conforms to ISO 179 - Part 1 (non-instrumented impact test).

The sample, supported near its ends as a horizontal beam, is impacted by a single blow of a striker, with the line of impact midway between the supports, and bent at a high, nominally constant velocity. The Izod method is used to investigate the behavior of specified types of specimens under impact conditions and to estimate the brittleness or toughness of specimens within the limitations inherent in the test conditions.

The test specimen, supported as a vertical cantilever beam, is broken by a single impact of a striker, with the line of impact a fixed distance from the specimen clamp and, in the case of notched specimens, from the centerline of the notch.

Standards

ISO 179 Part 1 (non-instrumented impact test).

FEATURES

Charpy Impact Tester 50J Features:

1. Impact speeds of 2.9 m/s & 3.8 m/s, as well as multiple impact energies up to 50J, can be generated by one pendulum.
2. High mass, traditional pendulum design concentrates energy at the impact point with minimal energy loss due to vibration.
3. The electrics contain a high-resolution encoder for accurate measurement of the impact angle.
4. Touch screen control for quick and easy input of parameters.
5. Results are automatically corrected for energy loss due to air and mechanical friction.

TECHNICAL SPECIFICATIONS

Energy levels (max capacity)	Span of Charpy	Charpy testing impact speed
1J, 2J, 4J and 5J (Model: CIT-5) / 15J, 25J, 50J (Model: CIT-50)	62mm	2.9 m/s (Model: CIT-5); 3.8m/s (Model: CIT-50)

Izod Energy levels (max capacity)	Izod testing impact speed	Measurement resolution
5.5J, 11J and 22J	3.5m/s	0.01J

Notch A	Notch B	Notch C
45º±1º Radius of the notch bottom, R=0.25±0.05mm	45º±1º Radius of the notch bottom, R=1±0.05m	45º±1º Radius of the notch bottom, R=0.10±0.02mm

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