TECHNICAL DATA SHEET

Polytevo Series Charpy Impact Tester

Digital Charpy impact tester · 1 J to 50 J pendulum energy ranges · 150° lift angle · touch screen · built-in micro printer



Polytevo Series Charpy Impact Tester (ACS-4020) — representative configuration

The Polytevo Series Charpy Impact Tester (ACS-4020) is a digital Charpy impact tester with encoder measurement, touch screen and built-in printer. Image shown for reference; final configuration is confirmed in the quotation.

CONTENTS

01 Product Overview

02 Core Advantages

03 Specifications

04 Applications

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SECTION I

Product Overview

Polytevo Series Charpy Impact Tester (ACS-4020) is a digital Charpy impact tester with a 150° pendulum lift angle, pendulum energy ranges from 1 J to 50 J (one range or all), a touch screen and a built-in micro printer, for impact testing of rigid plastics and other non-metallic materials.

The ACS-4020 is used to determine the impact resistance of rigid plastics, glass-fiber-reinforced plastics, electrical insulating materials, ceramics and cast stone and other non-metallic materials in quality control, research and testing laboratories. A high-precision encoder measures the pendulum angle, a carbon-fiber pendulum rod reduces errors caused by rod mass, and the absorbed energy is shown directly on the display, so there is no dial reading error.

SECTION II

Core Advantages

— **Three pendulum energy ranges** 1 / 2 / 4 / 5 J, 7.5 / 15 J and 25 / 50 J; choose one range or all ranges.

— **Carbon-fiber pendulum rod** Reduces errors caused by the mass of the rod.

— **Touch screen and built-in correction** The LCD touch screen shows the absorbed energy directly, with built-in energy-loss correction.

— **Four support spans** Specimen support span of 40, 60, 70 or 95 mm.

— **Encoder measurement** A high-precision photoelectric encoder removes pointer friction error and keeps operation simple.

— **Low-friction bearings** High-precision imported ball bearings keep pendulum energy loss to a minimum.

— **Built-in micro printer** Prints the test report; PC software is available as an option.

— **Changeable pendulums** Multiple pendulums and matching supports can be configured and are easy to change; an optional safety guard net is available.

SECTION III

Specifications

Technical data — ACS-4020

Specifications	
Parameter	**Specification**
Brand	Polytevo Series by ACS Material
Product Name	Polytevo Series Charpy Impact Tester
Model	ACS-4020
SKU #	ERP7CIT1
Product type	Digital Charpy impact tester
Impact energy (optional)	1 J / 2 J / 4 J / 5 J; 7.5 J / 15 J; 25 J / 50 J (one range or all ranges)
Pendulum lift angle	150°
Impact speed	2.9 m/s (1–5 J); 3.8 m/s (7.5–50 J)
Pendulum center-to-specimen distance	230 mm (1–5 J); 395 mm (7.5–50 J)
Specimen support span	40 / 60 / 70 / 95 mm
Support blade fillet radius	R = 1 mm
Impact blade angle / radius	30° / R = 2 ± 0.5 mm
Display and control	LCD touch screen with built-in micro printer
Power supply	AC 220 V ±10%, 50 Hz, 200 W
Machine dimensions (L × W × H)	1060 × 390 × 800 mm
Packing dimensions (L × W × H)	1100 × 520 × 950 mm
Gross weight	120 kg
Test method reference	ISO 179

Accessories — Pendulums and fixture

Accessories	
Accessory	**Description**
Pendulum hammers and weight sets	Pendulum hammers (1 J, 7.5 J, 25 J) with weight sets (2 / 4 / 5 J, 15 J, 50 J) for the selected energy ranges.
Charpy specimen fixture	Specimen supports combined on the machine.

Scope of delivery

— **Standard configuration:** the Charpy impact tester with specimen fixture, pendulum hammers and weight sets for the selected energy ranges, tool box, hex wrench, micro printer and printing paper.

— **Scope of supply** — final accessories and scope of supply are confirmed in the quotation.

SECTION IV

Applications

For determining the Charpy impact resistance of rigid plastics, glass-fiber-reinforced plastics, electrical insulating materials, ceramics, cast stone and other non-metallic materials.

Product value: Charpy impact testing from 1 J to 50 J with direct energy display, built-in correction and printed reports.

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