

QC-639C(D) Mechanical Impact Tester

Standard

ASTM D256 · ASTM D6110 · ISO179 · ISO180 · ISO13802

Description

QC-639 series tester can be used to determine impact resistance of polymers. It use the energy conversion to calculate the energy absorbed by the sample after impact. The precise of impact hammer will highly affect the center position of its mass and impact speed, which in turn influence the test accuracy. QC-639C/D uses pointer to record the angle after impact. It has a dedicated software to calculate and correction helping user to get the test result. Izod/Charpy is the most common methods. QC-639S/T can support to change the impact hammer and vise rapidly to satisfy different test condition and standards (ASTM & ISO).



Low Friction Pointer

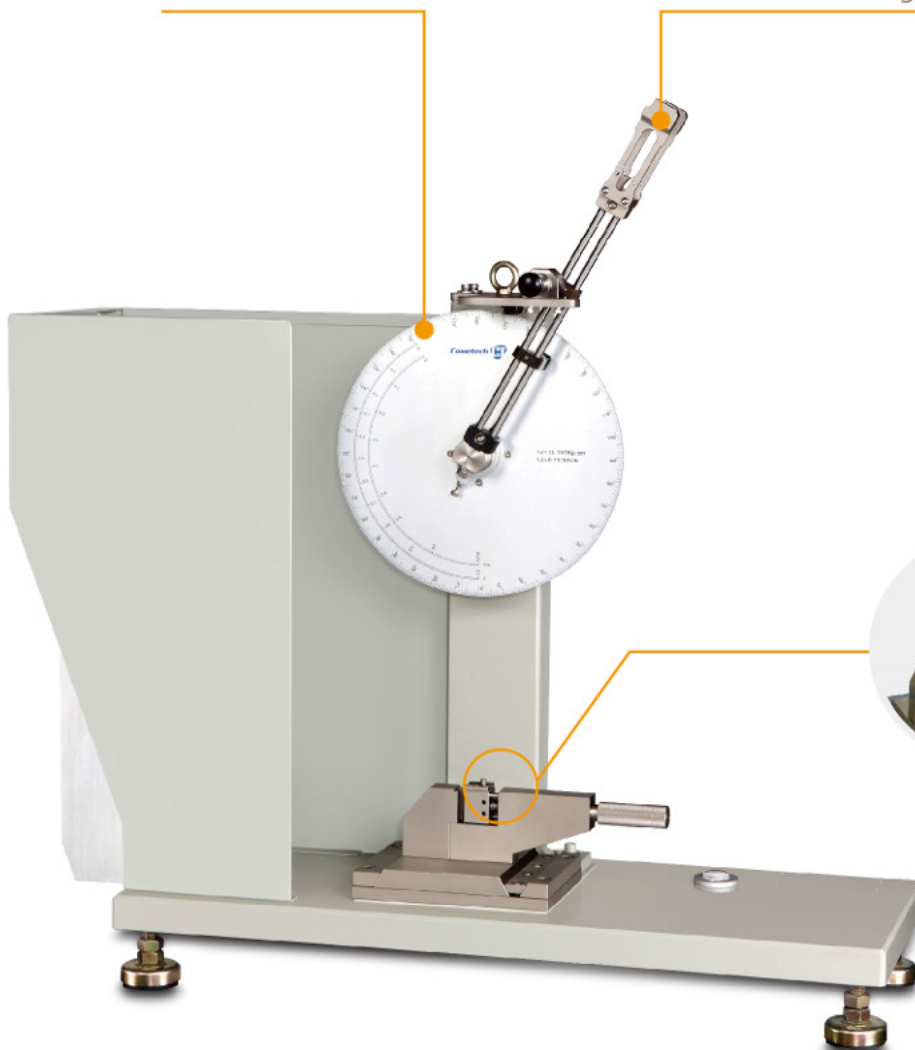


Izod Impact Hammer



Charpy Impact Hammer

Change Impact Hammer Rapidly



Izod



Charpy

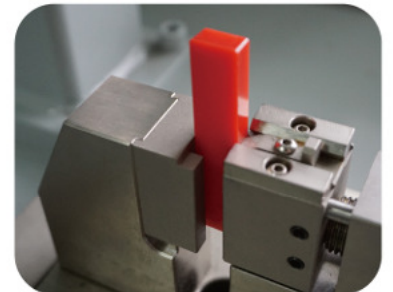
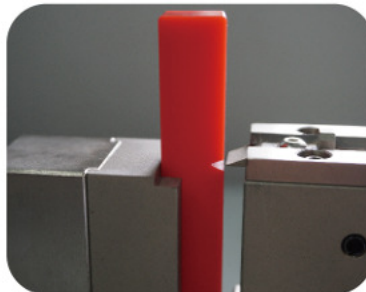
Specification

Model	QC-639C	QC-639D
Test Method	Izod · Charpy	
Initial Angle	150°	
Test Capacity	Izod 1-11J ASTM Charpy 1-11J ISO Charpy 1-5J	Izod 1-25J Charpy 1-25J
	20-80% of the max. capacity is the suggested test range.	
Feature	■ Big indicator board for reading the impact energy directly. ■ Standard pointer will be remain at the impact test angle for user to read easily. ■ Equipped with lever device to ensure the machine positioning accuracy. ■ Provide with impact area and collect box to increase the safety and decrease the cleaning time. ■ Able to change vises for Izod · Charpy to satisfy different test standards.	
Accessories	Calibration table for hammer, Manual, Energy Calculating Software, Hex Wrench Set	
Optional Items	■ Impact hammers for different energy test and different vises ■ QC-640A Impact Specimen V-notcher	
Dimension	90 × 30 × 70 cm	95 × 38 × 76 cm
Weight	100 kg	160 kg

Positioning Mechanism

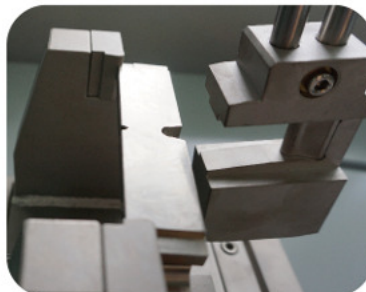
Izod

Triangular positioning block will ensure the specimen placing accuracy.



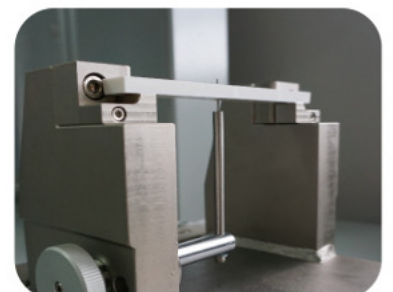
Charpy

Positioning vise can ensure the impact place is at the center of samples.



Charpy

Positioning pin can ensure the sample be placed at the impact center.



Software Interface

Meteorite
File Setting Tool About

Mass(m) 1.034 kg
Mass-Center Distance(R) 0.292 m
Gravity Acceleration(g) 9.80665 m/s²
Angle without Impact(β_{max}) 149 °
Initial Angle(α) 150 °
Angle after Impact(β) 123 °
Specimen Width(w) 3.2 mm
Specimen Depth(d) 10.16

Calculate Reset Delete

	Spm. Width	Spm. Energy	Spm. E/W	Spm. E/A	Pen. Energy	Spm. E/W
	mm	J	J/mm	KJ/m ²	J	J/m
1	3.20	1.29	0.40	39.67	5.53	403.01
2	3.20	1.63	0.51	50.03	5.53	508.32
3	3.20	0.93	0.29	28.53	5.53	289.89
Min.	3.20	0.93	0.29	28.53	5.53	289.89
Max.	3.20	1.63	0.51	50.03	5.53	508.32
Mean	3.20	1.28	0.40	39.41	5.53	400.41



Report / Print

Print Date: 2019/11/9 T: 02:17:56

Company Information

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Company:
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Fax:

Test Setting

Test: Test Number:
Test Name: Tester:

Data Table

	Spm. Width	Spm. Energy	Spm. E/A	Pen. Energy	Spm. E/W
	mm	J	KJ/m ²	J	J/m
1	3.20	3.04	93.42	5.53	949.15
2	3.20	2.05	63.26	5.53	642.67
3	3.50	2.05	57.83	5.53	587.59
4	3.50	1.41	39.90	5.53	432.36
5	3.50	0.90	25.39	5.53	257.55
6	3.50	1.48	40.96	5.53	416.14
7	3.30	1.75	52.26	5.53	537.01
8	3.30	1.17	34.96	5.53	355.24
9	3.30	3.54	105.51	5.53	1072.00
10	3.30	2.63	78.29	5.53	796.47
11	3.30	2.57	75.75	5.53	770.76
12	3.30	2.37	70.56	5.53	716.52
13	3.30	2.11	62.57	5.53	636.74
14	3.30	2.37	70.56	5.53	716.52
15	3.30	3.59	106.96	5.53	1086.72
Min.	3.20	0.90	25.39	5.53	257.55
Max.	3.50	3.59	106.96	5.53	1086.72
Mean	3.34	2.20	65.26	5.53	653.24

- Table function
- Result save function
- Correction of loss energy function
- Multiple test function
- Metric/Imperial unit switching
- Enter the impact angle to auto analyze specimen energy.

Related Machines

- QC-913 Digital Metal Impact Tester
- QC-640A Impact Specimen V-notcher

*Cometech reserves ultimate modification right of product specification.



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