

Test Method: EN ISO 20344

RESOTECH COLD INSULATION TESTER MODEL NO. RESOTECH SCH-020



This machine is designed to assess the insulation properties of footwear against cold temperatures. The equipment forms part of a suite required by the safety footwear standard, but can also be used for any application where footwear needs to withstand cold temperatures.

The equipment comprises a freezer cabinet capable of achieving -20°C (subject to ambient temperatures), a measuring probe to measure the internal temperature of the footwear and steel balls used to fill the footwear under test. The footwear is placed in the freezer cabinet, using the jack table provided, so that the open part of the footwear protrudes through the opening in the inner lid. The probe is placed on the insole. Temperature of the insole is shown on an LCD display located on the control cabinet. A digital temperature controller with a built-in display accurately controls the freezer temperature and the difference between the freezer temperature and insole temperature determines the amount of thermal insulation.

Application

This test is conducted in a low temperature chamber (-17°). Put the shoe in a low temperature chamber and use a temperature probe to record the temperature change.

Features:

1. Adjust the temperature of the cold box to $-20^{\circ}\text{C} \sim 100^{\circ}\text{C}$ and maintain this temperature during the test.
2. Place the test piece on the laboratory jack inside the cold box.
3. Use the temperature measuring device connected to the temperature probe to measure the temperature on the insole as a function of time, recording the temperature decrease graphically.
4. Calculate, to the nearest 0.5°C , the decrease in temperature 30 min after the test piece was placed in the cold box.

Specification

Model	RESOTECH SCH-020
Temperature Range	$-20^{\circ}\text{C} \sim 100^{\circ}\text{C}$, Accuracy 0.1°C (Temperature Range Can Be Customized To -40°C Or Lower)
Medium	Stainless Ball Diameter 5mm (4kg)
Copper Plate	Length (350 ± 5) , Width (150 ± 1) Mm, Thickness (5 ± 0.1) Mm
Power	1 ϕ , AC220V
Standard	BS EN ISO 20344