



40-700-000 ESCR-Tester

Standards

ASTM D 1693



Application

This test method covers the determination of the susceptibility of ethylene plastics to environmental stress-cracking. Under certain conditions of stress and in the presence of environments such as soaps, wetting agents, oils, or detergents, ethylene plastics may exhibit mechanical failure by cracking.

Bent specimens of the plastic, each having a controlled imperfection on one surface, are exposed to the action of a surface-active agent. The proportion of the total number of specimens that crack in a given time is observed.

Features

The ESCR tester comprises a temperature bath with a test tube rack for holding up to 30 test tubes. Each test tube has space for 10 specimens. For sample preparation, a nicking unit with matching blade is supplied. The notched specimens are pre-stressed using the bending clamp and inserted into the specimen holder using the transfer tool.

The device comes standard with the following accessories:

- Temperature Bath with Test Tube Rack for 30 Test Tubes
- Nicking Jig incl. Blade
- Bending Clamp
- Transfer Tool
- Test Tube Tong

Technical Data

Temperature range	RT + 10 °C to +150 °C
Temperature stability	± 0.1 °C
Volume	17 to 27 L



Dimensions and Connection

Dimensions (DxWxH)	580 x 380 x 470 mm
Weight	13 kg (Thermostat), 27.5 kg (gross weight incl. accessories)
Mains	230 V, 50 Hz (alternative power supply on request)
Power	2000 W

Partlist

Item no.	Description
40-700-000	ESCR-Tester incl. 1x 5-040-015 - Cooling Bath 1x 9-953-004 - Nicking Jig with Blade 1x 9-953-005 - Bending Clamp 1x 9-953-006 - Transfer Tool 1x 9-953-007 - Test Tube Rack 1x 40-700-002 - Test Tube Tong
40-700-001	Test Tube Ø 36 mm, l = 200 mm
40-700-002	Test Tube Tong
40-700-003	Corks
40-700-004	Specimen Holder
40-700-005	Blades (5/pack)
40-212-005	Thermal Fluid (10 Liters)