



40-700 ESCR-Tester

Standards

ASTM D 1693



10-Station-Device



50-Station-Device



Tools

Application

The ESCR test measures 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 racks holding up to 10/50 test tubes. Each test tube has space for 10 specimens. For sample preparation, a notching unit with notching blade is supplied. The notched specimens are pre-stressed using the bending clamp and inserted into the specimen holder using the transfer tool.

Up to 10 test tubes are placed in a rack, which can be removed from the ESCR test bath for sample preparation and inserted into the bath for testing. The 50 Station unit can hold up to 5 sample racks and can thus be configured as a 10/20/30/40/50 station unit. 30 samples can be viewed through the front window and up to 50 can be tested simultaneously.

A unique feature of the Coesfeld ESCR tester is the large glass front with integrated LED light to inspect samples while sample remain in the bath. This makes measurement time efficient and clean.

Technical Data

	10-Station-Device	50-Station-Device
Dimensions (WxDxH)	526 x 440 x 476 mm	1331 x 440 x 476 mm
Bath Volume	~24 l	~72 l
Weight	~35 kg (empty)	~75 kg (empty)
Temperature range	RT + 10 °C to 150 °C	
Temperature stability	± 0.1 °C	
Mains / Power	230 V, 50 Hz (alternative on request) / 2000 W	



List of items

Item	Description
40-700-011	 10 Station ESCR Tester (up to 10 specimen)
40-700-010	 50 Station ESCR Tester (up to 50 specimen)
9-153-123	Lid, covering bath when sample rack is not inserted/ 1 lid per test rack
9-953-010	 Test Rack for holding up to 10 test glasses/ min. 1 rack required per unit/ max.5 racks possible for 50 Station tester
40-700-013	 Test glass, outer Ø 36 mm, inner Ø 32 mm, length = 225 mm, 1 per sample holder
40-700-002	 Test tube tong to hold test glass / 1 per unit
40-700-003	 Cork stopper, 1 per test glass
40-700-004	 Brass specimen holder for 10 samples / 1 per test glass
9-953-004	 Nicking jig to cut sample / 1 per unit
40-700-006	 Gauge to measure notch depth / 1 per nicking jig
40-700-005	 Notching Blades for nicking jig (5/pack) (1 Blade can be used for notching approx. 100 samples)
40-700-012	 Notching Blades for nicking jig (200/pack) (1 Blade can be used for notching approx. 100 samples)
9-953-005	 Bending clamp to simultaneously bend 10 sample / 1 per unit
9-953-006	 Transfer tool to transfer sample from bending clamp to brass holder / 1 per unit