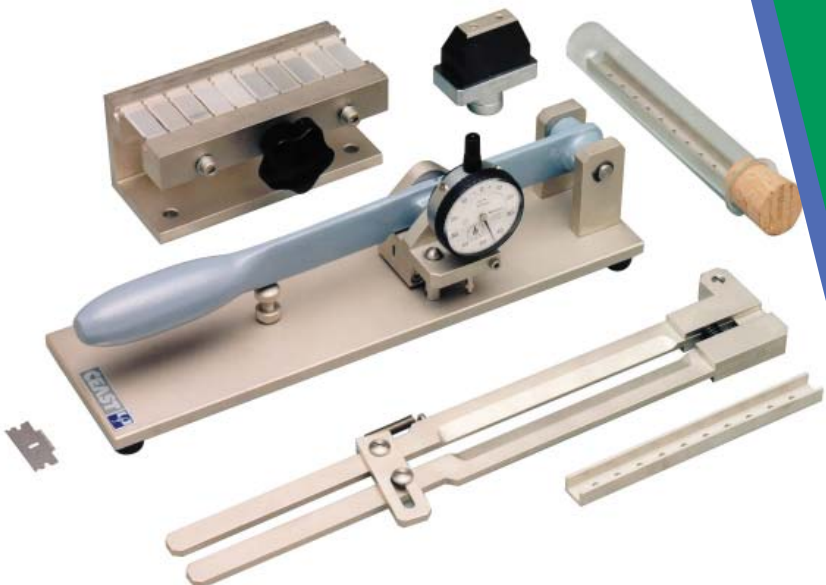




# STRESS CRACKING



DESIGN AND PRODUCTION OF  
INSTRUMENTS AND APPARATUS  
FOR QUALITY CONTROL  
ON MATERIALS



These instruments are made in  
compliance with CE health and  
safety requirements



**Scope**

This apparatus is designed to notch and bend specimens of defined shape and size.

This notching, to dimensions and tolerances as referred by Standards is made along the longitudinal axis of the specimen in order to allow initiation of "Stress Crack" and "Fissure" due to internal stresses.

These are caused:

- 1) by bending or deflection of the specimen;
- 2) by the liquid into which the specimen is immersed.

The bent specimens, 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.

**Standards**

Designed and built to meet the specifications of following standard:

- ASTM D 1693

and other similar or equivalent.

**Technical features**

- Specimen dimensions: 38 ±25 mm x 13 ±0.8 mm
- Specimen notching: length 19 mm
- Notching depth: variable (0.30; 0.40; 0.50; 0.65 mm) according to the thickness of the specimen as shown on table 1 of ASTM D 1693
- The thickness is variable and according to 3 classes (A; B; C) as per table 1 of ASTM Standard, which defines the notching depth
- Test temperature: +50°C for classes A and B (Table 1 - ASTM Std.)
- Test temperature: +100°C for class C (Table 1 - ASTM Std.)
- Liquid conditioning agent as indicated in the test procedure of the material
- Test tubes, glass made, Ø 32 mm x 200 mm (length)

**Apparatus description**

The apparatus, code 6947.000, consists of:

- Nicking Jig - complete of a lever arm, dial gauge (range 0 ÷ 10 mm, accuracy 0.01 mm), blade blocking system and a device to select and limit the specimen notching depth at the requested value.
- Bending Clamp Assembly - 10 seats, to bend specimens at 180° approx.
- Transfer Tool Assembly - to transfer the 10 bent specimens from bending clamp to the specimen holder.
- Specimen Holder - 10 U-shaped channels, to keep in place the specimens bent at 180°.
- Test Tubes - 10 hard glass tubes to allow housing of the specimen holder and liquid. Tubes are provided with cork plugs for leak-tight closure.
- Set of 5 interchangeable notching blades.

**Ancillary equipment**

- Blanking Die - rectangular die (ASTM D 1693) for cutting specimens 38 ±2.5 mm by 13 ±0.8 mm, code 8040.000 - with-out ejector.
- Blanking Die - rectangular die (ASTM D 1693) for cutting specimens 38 ±2.5 mm by 13 ±0.8 mm, code 8040.020 - with ejector.
- Hollow Die Punching Machine (manually operated), code 6051.000.
- Hollow Die Punching Machine (pneumatically operated), code 6052.000.
- Thermostatic Bath - to condition the test tubes at different temperatures according to ASTM D 1693 standard; equipped with cooling coil, outlet tap and thermostatic unit with Pt 100 thermoresistance, temperature range: +20 ÷ 100°C, code 2053.000.
- Thermometer, range +20 ÷ 65°C, 1/10°C divisions - code 0100.096
- Thermometer, range +60 ÷ 105°C, 1/10°C divisions - code 0100.097

<b>Technical Data</b>	
Overall dimensions (L x D x H) mm	350 x 100 x 90 approx.
Mass kg	4 approx.
Paint	Sandblasted and Nickel-plated - fuchsia RAL 4006

"Due to the continuous development policy of CEAST's Research and Development Department, changes may be introduced without notice"



www.ceast.com



**CEAST S.p.A.**

• Via Airauda, 12 • 10044 Pianezza (TO) Italy  
 • Tel: (+39) 011.966.40.38 (10 lines) • Fax: (+39) 011.966.29.02  
 E-MAIL: Int. Sales: Infotaly@ceast.com - Int. after sales: aftersalestech@ceast.com

**CEAST USA Inc.**

• 4816 Sirius Lane, Charlotte, NC 28208  
 • Tel. 704-423-0042 • Fax 704-423-0081  
 E-MAIL: USA Sales: salesusa@ceast.com - USA Service: Keith@ceast.com

**CEAST GmbH**

• Bunsenstr. 5, D-82152 Martinsried  
 • Tel. ++49 (0) 89/85 90 28 12 - 89 50 18 10 • Fax ++49 (0) 89/89 94 98 51  
 E-MAIL: Sales and Service: info.germany@ceast.com