

Aparat za simulaciju savojne otpornosti fleksibilnih ambalažnih materijala / **Flex durability tester**

KFT



The apparatus is used for simulating a creasing strain of flexible packaging materials (KFT).

PROIZVOĐAČ I MODEL

Brugger-Feinmechanik GmbH, KFT

MANUFACTURER AND TYPE

Brugger-Feinmechanik GmbH, KFT

Kratki opis metode

Uvjeti simulacije odgovaraju onim propisanim ASTM F-392 standardom. Savojna otpornost fleksibilnih ambalažnih materijala određuje se pri standardnim atmosferskim uvjetima (23 °C i 50 % RH). Postupak savijanja sastoji se od uvijanja a zatim horizontalnog pomaka, odnosno od ponavljano uvijanja i gužvanja filma s učestalošću od 45 ciklusa po minuti (cpm). Oštećenje uslijed gužvanja određuje se mjerenjem točkastih oštećenja nastalih u strukturi materijala pomoću obojenog terpentina, koji prolazeći kroz nastale pore oboji bijelu podlogu. Drugi kriteriji mjerenja oštećenja koji se mogu upotrijebiti su određivanje propusnosti na plinove (GDP-C aparat) i/ili vodenu paru (npr. WDDG aparat).

Short description of the method

This device can easily be used for all ASTM F-392 conditions. Samples of flexible materials are flexed at standard atmospheric conditions (23 °C and 50 % RH). The flexing action consistent of a twisting motion followed by a horizontal motion, thus, repeatedly twisting and crushing the film. The frequency is at a rate of 45 cpm (cycles per minute). Flex failure is determined by measuring the pinholes, formed in the structure, using coloured turpentine and allowing it to stain through the holes onto a white backing. In addition, other failure criteria such as gas permeability (GDP-C device) and/or water vapour (WDDG device) can be used.

Namjena

Aparat služi za simulaciju savojne otpornosti kojoj su podvrgnuti fleksibilni ambalažni materijali tijekom proizvodnje ili pakiranja.

Purpose

The KFT is used for simulating a creasing strain to which flexible packaging materials may be subject during machine processing or during the packaging process.

Tehničke značajke

Kut rotacije	400° ili 440°
Horizontalni udar	87 mm ili 107 mm
Broj udara (ciklusa)	1 do 99999 (podesivo brojačem)
Ciklusi po minuti	50 +/-1
Dimenzije	110 x 33 x 34 cm
Masa	40 kg
Radna temperatura	15°C to 35°C
Relativna vlaga	max. 80%,
Električni priključak KFT	400 V/50 -60 Hz, potrošnja snage 400 W (približno)

Technical characteristics

Angle of Rotation	400° or 440°
Horizontal Stroke	87 mm or 107 mm
Number of Strokes	1 to 99999 (counter-adjustable)
Strokes per Minute	50 +/-1
Dimensions	110 x 33 x 34 cm
Weight	40 kg
Working temperature	15°C to 35°C
Relative humidity	max. 80%,
Electrical connection KFT	400 V/50 -60 Hz, power consumption 400 W, approx.

Tip i priprava uzorka

Papir, karton ili polimerni materijal dimenzija 210 x 295 mm.

Sample type and preparation

Paper, board or flexible polymeric packaging materials dimensions of 210 x 295 mm.

Standard

ASTM-F392-93 (1998)	Standard Test Method for Flex Durability of Flexible Barrier Materials
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