

# Test report

REPORT NO.:  
29/18



DANISH  
TECHNOLOGICAL  
INSTITUTE

Gregersensvej  
DK-2630 Taastrup  
+45 72 20 20 00  
Info@teknologisk.dk  
www.teknologisk.dk

11 January 2018  
Assignment no.: 789995

Page 1 of 2  
No. of encl.: 0  
Init.: afr/bbi  
Cosign.: *DECR*

**Customer:** WOCA Denmark A/S  
Tværvej 6  
DK-6640 Lunderskov

**Contact person:** Anne Kørner

**Sample:** One lacquered table surface (see page 2)

**Sampling:** The sample has been received here on 8 December 2017

**Period:** The testing has been carried out from 19 to 21 December 2017

**Procedure:** Determination of surface resistance of table tops according to "Furniture surfaces-Resistance requirements" dated 26-06-2002, requirement category 4 and 5

**Result:** The table top marked "Sample 1-3 layer" fulfil the requirement category 4 and 5, see remarks.

**Storage:** According to the general terms and conditions of The Danish Technological Institute

**Remarks:** Ink penetrates the open grains.

**Conditions:** The test has been performed according to the conditions laid down by DANAK (The Danish Accreditation), cf. [www.danak.dk](http://www.danak.dk), and the general terms and conditions of The Danish Technological Institute. The results from DTI's work in this report, i.e. analyses, assessments and instructions may only be used or reported in their entirety. The customer may not mention or refer to DTI or DTI's employees for advertising or marketing purposes unless the DTI has granted its written consent in each case

**Place:** Danish Technological Institute, Taastrup, Plastics and Packaging Technology

**Signature:**

*Deepa Ch*  
Deepa Chakkamadathil Ramachandran  
Technical Consultant, M.Tech.  
Mobile: +45 72 20 15 20  
Mail: [decr@dti.dk](mailto:decr@dti.dk)

*Anni Friis*  
Anni Friis  
Process Technologist  
Mobile: +45 72 20 31 23  
Mail: [afr@dti.dk](mailto:afr@dti.dk)



  
Test Reg. nr. 300

## Test

Determination of surface resistance according to requirement category 4 and 5

### Test methods

DS/INF 132, 2002	Furniture surfaces- Resistance requirements
EN 12720+A1, 2013	Furniture – Assessment of surface resistance to cold liquids
EN 12722+A1, 2013	Furniture – Assessment of surface resistance to dry heat
SIS 83 91 17, 1973	Furniture and fittings – Determination of surface resistance to scratches
SS 83 91 22, 2017	Furniture and fittings - Assessment of resistance to fat on surfaces with scratches

### Sample

Surface: Solid oak surface lacquered with transparent lacquer marked "Sample 1-3 layer". Size: 550 x 150 x 18 mm

The sample was conditioned at 23°C and 50% RH from 8 to 19 December 2017

### Test results

Exposure	Exposure time Conditions	Sample 1-3 layer, Rating <sup>1</sup>
Water	24 hours	5
Paraffin oil	24 hours	5
Coffee 40 g/l	1 hour	5
Alcohol, 48%	1 hour	5
Scratch	3N	No penetration, Width ≤0,5 mm*
	5N	No penetration, Width ≤0,5 mm*
Scratch + paraffin oil	3N+24 hours	5
	5N+24 hours	5
Dry heat	70°C/20 min	5

\*Ink penetrates the open grains.

#### 1. Resistance to cold liquids and dry heat

Rating	Description
5	No change Test area indistinguishable from adjacent surrounding area
4	Minor change Test area distinguishable from adjacent surrounding area, only when the light source is mirrored on the test surface and is reflected towards the observer's eye, e.g. discoloration, change in gloss and colour. No change in the surface structure, e.g. swelling, fibre raising, cracking, blistering
3	Moderate change Test area distinguishable from adjacent surrounding area, visible in several viewing directions, e.g. discoloration, change in gloss and colour. No change in the surface structure, e.g. swelling, fibre raising, cracking, blistering
2	Significant change Test area clearly distinguishable from adjacent surrounding area, visible in all viewing directions, e.g. discoloration, change on gloss and colour, and/or structure of the surface slightly changed, e.g. swelling, fibre raising, cracking, blistering
1	Strong change The structure of the surface being distinctly changed and/or discoloration, change in gloss and colour, and/or the surface material being totally or partially removed, and/or the filter paper adhering to the surface

#### 1. Resistance to fat on surfaces with scratches

Rating	Description
5	No fat spreading, max. 2 mm colour change in the scratch itself
4	Fat spreading up to overall width of maximum 4 mm
3	Fat spreading up to overall width of maximum 15 mm or structure changes outside the scratch
2	Fat spreading up to overall width of maximum 40 mm
1	Fat spreading up to overall width above 40 mm