

Subject : **STACOAT-V1: Food contact certificate**

Food contact certificate

STACOAT-V1 is certified for use in direct contact with ALL kinds of foodstuff, including solid, aqueous, acidic, alcoholic and fatty foodstuffs.

ALL of the overall migration limits aren't exceeded, in compliance with the governing regulations related to materials intended to come into contact with food:

- European Regulation EU no. 1935/2004 and amendments (successor of 2002/72/EC and 1895/2005).

The base substances, used for the manufacturing of STACOAT-V1, appear in the “positive list” of authorised materials and the specific migration limits of bisphenol-A aren't exceeded, in compliance with the European Food Contact Directive:

- European Regulation EU no. 10/2011 and amendments.

Test samples are analysed conform:

- European Directive 82/711/EEC and amendments
- European Directive 85/572/EEC and amendments.

Further approvals

STACOAT-V1 base resin is manufactured to the highest quality standards according to Good Manufacturing Practices (GMP) for materials intended to come in contact with food and drinking water:

- European Regulation EU no. 2023/2006 and amendments.

STACOAT-V1 base resin has approvals at Drinking Water Institutes such as:

- UK BS6920/WRAS
- French ACS.

Relevant regulations

Accredited testing laboratory

Name: **BPI (Belgian Packaging Institute)**
Address: Zone 1 Researchpark 280, B-1731 Zellik (Asse)
Test report created by: Liesbeth Van Elsen
Test report No.: CFP-12.001

Conformance with the requirements

The evaluation has been carried out in compliance with the governing regulations related to materials intended to come into contact with food:

- European Regulation EU no. 1935/2004 and amendments (successor of 2002/72/EC and 1895/2005).

All base substances, used for the manufacturing of the product, have to appear in the “positive list” of authorised materials or the specific migration limits may not be exceeded, in compliance with the European Food Contact Directive:

- European Regulation EU no. 10/2011 and amendments.

Test samples are analysed conform:

- European Directive 82/711/EEC and amendments
- European Directive 85/572/EEC and amendments.

Migration tests

General information

Date of starting migration testing: 16-1-2012

Date of ending migration testing: 7-3-2012

Description of samples: STACOAT-V1, shrink-free vinylester coating designed for contact with foodstuff.

Tested sample: Plates 150 x 150 mm

Number of identical samples: 22 pcs

Overall migration tests

<u>Simulant</u>	<u>Contact duration and temperature</u>	<u>Limit*</u>	<u>Test results</u>	<u>Contact</u>
simulant B: acetic acid 3% (w:v)	10 days at 40°C + 2 hours at 70°C	10 mg/dm ²	<0,5 mg/dm ²	1 st
simulant C: ethanol 10% (v:v)	10 days at 40°C + 2 hours at 70°C	10 mg/dm ²	0,8 mg/dm ²	1 st
simulant D: ethanol 95%	10 days at 40°C + 2 hours at 70°C	10 mg/dm ²	29,1 mg/dm ² 10,9 mg/dm ² 8,9 mg/dm ²	1 st 2 nd 3 rd
simulant D: isooctane	2 days at 20°C + 30 minutes at 40°C	10 mg/dm ²	1,2 mg/dm ²	1 st

*: The maximum limit for the overall migration is 10 mg/dm² or 60 mg/kg foodstuffs after the 3rd contact period.

After the contact period, the simulants were evaporated and the residual weights were determined.

The test samples didn't give away any visual colorants and/or coloured products to the simulants used at the given conditions.

Specific migration test

EU no. 10/2011 and amendments, necessitate the specific migration of bisphenol A.

<u>Sampling</u>	<u>Analysis method</u>	<u>Limit</u>	<u>Test results</u>
STACOAT-V1 scratched from the plate with a razor blade and extracted with dichloromethane	extract analysed with HPLC	0,6 mg/kg food	<0,1 mg/kg coating

Result interpretation

Overall migration

The results show that the overall migration is less than the maximum limit for all simulants:

- Simulant A, distilled water, representing all aqueous foodstuffs: testing not required in case of approval of simulant B
- Simulant B, acetic acid 3%, representing all acidic foodstuffs
- Simulant C, ethanol 10%, representing all alcoholic foodstuffs
- Simulant D, ethanol 95% and isooctane, instead of olive oil, representing all fatty foodstuffs.

Specific migration

The base substances, used for the manufacturing of STACOAT-V1, appear in the "positive list" of authorised materials and the specific migration limits of bisphenol-A aren't exceeded.

Remark: the test could not detect any residual amount (" $< 0,1$ mg/kg coating" means it's below the lower measure limit of the HPLC apparatus). Because one kg of food comes into contact with a fraction of a kg of the coating, this means that the result is at least numerous times lower than the limit.

Conclusion

STACOAT-V1 is certified for use in direct contact with ALL kinds of foodstuffs, including solid, aqueous, acidic, alcoholic and fatty foodstuffs.

All of the overall migration limits aren't exceeded.

The base substances, used for the manufacturing of **STACOAT-V1**, appear in the "positive list" of authorised materials and the specific migration limits of bisphenol-A aren't exceeded.