Certification
Technological Center

Campus de la UAB
Apt. Correos 18
08193 Bellaterra (Barcelona)
T 93 567 2000
F 93 567 2001
ctc@appluscorp.com
www.applusctc.com

Applus

| | | |
|---|---|---|
| **Bellaterra** | : | **29th July 2005** |
| **File Number** | : | **5029211- English translation** |
| **Petitioner** | : | **TORRASPAPEL S.A.**<br>**Ctra. De França, s/n**<br>**17840 Sarrià de Ter**<br>**Girona** |

## RECEIVED MATERIAL

Material to be tested received on: 25th July 2005
The sample has been presented according the directions of the petitioner, as a paper with the reference ESTUCADO DOBLE 2/C MATE manufactured by TORRASPAPEL S.A.

## REQUESTED TEST

Accordance of the product with requirements of:

1. Directive 2002/95/CE of the European Parliament and Council of 27thJanuary of 2003 about restriction of the use of certain hazardous substances in electrical and electronic equipment.
2. Directive 2003/11/CE of the European Parliament and Council of 6th February of 2003 about the limitation of commercialization and use of certain hazardous substances and preparations (Ether of Pentabrominated Diphenyl, Ether of Octabrominated Diphenyl).

- Determination of Cadmium (Cd), Chromium (Cr), Lead (Pb) and Mercury (Hg).
- Determination of the presence of Polybrominated biphenyl's (PBB) or Polybrominated diphenyl ethers (PBDE).

## TEST METHOD

Determination of Lead, Chromium, Cadmium, and Mercury according to the EN 1122.
For Mercury has been used the same method, but reflux mineralitation.
Used Technique: Inductively Coupled Plasma Spectrometry.
Determination of PBB and PBDE. CG-EM previous extraction of sample whith toluene.

File number: 5029211 Page number: 2

RESULTS

Tested on:
Start: 25th July 2005
End: 29th July 2005

| | ESTUCADO DOBLE 2/C MATE |
|---|---|
| Chromium (Cr) | Lower than 5 ppm |
| Lead (Pb) | Lower than 5 ppm |
| Cadmium (Cd) | Lower than 5 ppm |
| Mercury (Hg) | Lower than 5 ppm |
| Polybrominated Biphenyl's (PBB) and Polybrominated Diphenyl Ethers (PBDE) | Lower than 100 ppm |
| Ether of Pentabrominated Diphenyl | Lower than 100 ppm |
| Ether of Octabrominated Diphenyl | Lower than 100 ppm |

Note: Lower than 5 ppm (mg/Kg) and lower tan 100 ppm (mg/Kg) are the limits of detection of the used technique.
To see Annex I.

**CONCLUSIONS**

3. According to the obtained results and the comments of Annex I, the analyzed sample of ESTUCADO DOBLE 2/C MATE paper manufactured by TORRASPAPEL S.A. is in accordance with evaluation requirements fixed on Article 4 point 1 of Directive 2002/95/CE of the European Parliament and Council of 27th January of 2003 about restriction of the use of certain hazardous substances in electrical and electronic equipment, the same way as Directive 2003/11/CE of the European Parliament of Council 6th February of 2003 about the limitation of commercialization and use of certain hazardous substances and preparations (Ether of Pentabrominated Diphenyl, Ether of Octabrominated Diphenyl).

LGAI Technological Center, S.A.

Isabel Garmendia Arnau
Technical Responsible
Materials and Industrial Processes
LGAI Technological Center S.A

LGAI Technological Center, S.A.

Cristina Esteban Perlas
Materials Unit Responsible
Materials and Industrial Processes
LGAI Technological Center S.A.

ANNEXE 1

Directive 2002/95/CE don't establish maximum quantity allowed in connection with analyzed elements, quote verbatim, on article 4 that: *"tested sample hasn't contains cadmium, chromium, lead and mercury"* even though establish exceptions on annex. Of article 5, point 1, of Directive 2002/95/CE, section a) says "*establishing as necessary maximum concentration values up to which the presence of the substances referred to in Article 4(1)*" according to article 7 point 2, "*will be established by a committee*".

On July of 2004 was formed a commission which made the following proposal:

Maximum value of concentration on 0,1% on weight on homogeneous materials for lead, mercury, hexavalent chromium, PBB and PBDE, and 0,01% on weight for cadmium. To see Table 1.

TABLE 1

| | Maximum Values |
|---|---|
| Lead (Pb) | 1000 ppm |
| Hexavalent Chromium (CrVI) | 1000 ppm |
| Mercury (Hg) | 1000 ppm |
| Cadmium (Cd) | 100 ppm |
| Polybrominated Phenyls (PBB) | 1000 ppm |
| Polybrominated Phenyls Ethers (PBDE) | 1000 ppm |

So, based on the results, the analyzed sample is according with Directive 2002/95/CE