



CSI
Certificazione e Testing

DIVISIONE: **FOOD PACKAGING MATERIALS**
DIVISION:

LABORATORIO:
LABORATORY:

MATERIALI

RAPPORTO DI PROVA
(Test Report)

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N° 0191\FPM\MATs\09

Data: 17/03/2009
Date:

IDENTIFICAZIONE E DESCRIZIONE DEL CAMPIONE:
SPECIMEN DESCRIPTION:

DRIPPED PMMA 6x6x6

DATI IDENTIFICATIVI DEL CLIENTE:
CLIENT:

STILFORM SNC
VIA PAPA SISTO V°, 12
63039 SAN BENEDETTO DEL TRONTO (AP)

NORMA DI RIFERIMENTO:
REFERENCE STANDARD:

RoHS Directive 2002/95/CE
94/62/CE Directive

DISTRIBUZIONE ESTERNA:
OUTSIDE DISTRIBUTION:

STILFORM SNC
Sig. Marco LORENZETTI

DISTRIBUZIONE INTERNA:
INSIDE DISTRIBUTION:

Copy to Division Head

ENTE DI ACCREDITAMENTO:
ACCREDITATION BODY:



GENERALITIES

- Sample receiving date: 05/03/2009
- Analysis start date: 05/03/2009
- Analysis end date: 13/03/2009
- Deviation from test methods: NO

SAMPLE DESCRIPTION

DRIPPED PMMA 6x6x6

SAMPLING

The initial sampling has been done by the customer.
The sampling for the test has been done drawing casually part of the sample in our possession.

DECLARATION

The test results of the present report are related exclusively to the tested sample.
The present test report cannot be partially reproduced without the authorization of CSI managing Director.

PERFORMED DETERMINATIONS

1) ROHS DIRECTIVE 2002/95/CE

Determination of Hg, Cd, Cr, Pb by XRF and ICP

XRF analysis of a milled portion of your sample for the determination of Hg, Cd, Cr, Pb.

ICP analysis of your sample after its mineralization in Anton Paar asher for the quantification of Hg, Cd, Cr, Pb.

Sensibility threshold: 50 ppm for XRF analysis and 1 ppm for ICP analysis

Determination of PBBs abd PBDEs by GC-MS analysis

GC-MS analysis for the determination of PBBs and PBDEs after extraction from your samples by using a suitable solvent.

Sensibility threshold: 5 ppm

Limits in accordance to RoHS Directive 2002/95/CE:

| Substances | Limits |
|--------------------------|----------------------|
| Cadmium (Cd) | 0.01% |
| Lead (Pb) | 0.1% ^(**) |
| Mercury (Hg) | 0.1% |
| Cromium (Cr VI) | 0.1% |
| PBBs | 0.1% |
| PBDEs (excluded decaBDE) | 0.1% |

(**) *Lead: for copper based alloys, a 4% concentration is admitted.
for aluminum based alloys, a 0.4% concentration is admitted.
for steels, a 0.35% concentration is admitted.*

2) METALS DETERMINATION ACCORDING TO 94/62/CE

Determination of Cd, Cr, Pb, Hg in your sample according to 94/62/CE, 20th December 1994, after acid dissolution in Anton Paar asher HAP-5 and ICP analysis by OPTIMA 4300 PerkinElmer.

Sensibility threshold:

- Cr 10 mg/kg
- Cd 10 mg/kg
- Hg 10 mg/kg
- Pb 10 mg/kg



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RESULTS

1) ROHS: BR, HG, CD, CR, PB AND PBBS, PBDES DETERMINATION

| N° | Sample | Cd (%) | Pb(%) | Hg(%) | Cr ⁶⁺ (%) | Br(%) | PBB/PBDE(%) |
|----|--------------------|--------|-------|-------|----------------------|-------|-------------|
| 1 | DRIPPED PMMA 6x6x6 | n.d. | n.d. | n.d. | n.d. | n.d. | n.d. |

2) METALS ACCORDING TO 94/62/CE DIRECTIVE

| Sample | Metals | | | | |
|--------------------|--------|------------------|------|------|------------------------------|
| | Cd | Cr ⁶⁺ | Pb | Hg | Limits according to 94/62/CE |
| DRIPPED PMMA 6x6x6 | < 10 | < 10 | < 10 | < 10 | 100 mg/kg (*) |

(*)As the sum of the metals concentration

CONCLUSIONS

The sample **DRIPPED PMMA 6x6x6** satisfies the requirements of **Directive RoHS (D.L. 151 25/07/2005)** and **directive 94/62/CE**.

Date
17/03/2009

Division Head
Gian Luigi Vestrucci

Managing Director
Pasqualino Cau