

TÜV Rheinland LGA Products GmbH · 51101 Cologne
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03.03.2017

Report No. 0003210918/30 AZ 260872

Test item: Three PU foams
Manufacturer's name: RIF Ametist

Identification:
1. PU foam grade ST1825 production date 10/02/2017, batch no. 482
2. PU foam grade HR4026 production date 29/01/2017, batch no. 336
3. PU foam grade LR5014 production date 31/01/2017, batch no. 344

Condition at delivery: No claim

Date of delivery: 23.02.2017

Place of testing: Cologne

Test period: 24.02.2017 to 03.03.2017


Test scope: Parameters selected by customer

Test specification: IKEA IOS-MAT-0010 Vers. AA-10911-13 dated 2015-11-13

Test result: Pass - The test items meet the test specification.

Cologne, 03.03.2017


Dipl.-Ing. Margot Thiel
(Expert)


Dipl.-Ing. Gunther Bier
(Expert)

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1. Results

Organotin compounds

Sample No.	260872-004	260872-005	260872-006
Sample composition	Art. 1	Art. 2	Art. 3
Unit	mg/kg	mg/kg	mg/kg
Organotin compounds, total	n.n.	n.n.	n.n.
Monobutyltin, MBT	<0,005	<0,005	<0,005
Dibutyltin, DBT	<0,005	<0,005	<0,005
Tributyltin, TBT	<0,005	<0,005	<0,005
Tetrabutyltin, TeBT	<0,005	<0,005	<0,005
Monooctyltin, MOT	<0,005	<0,005	<0,005
Diocetyl tin, DOT	<0,005	<0,005	<0,005
Tricyclohexyltin, TcyT	<0,005	<0,005	<0,005
Triphenyltin, TPhT	<0,005	<0,005	<0,005
Methyl tin	0,587*	0,32*	<0,005
Di-n-propyl tin	<0,005	<0,005	<0,005
Diphenyl tin	<0,005	<0,005	<0,005

Limit values:

DBT and TBT 0,2 mg/kg each

Sum of all organotin compounds 2,5 mg/kg

*Methyltin result is probability false positive caused by derivatisation process in combination with presence of Sn(II).

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Plasticizer

Sample No.	260872-007	260872-008	260872-009
Sample composition	Art. 1	Art. 2	Art. 3
Unit	mg/kg	mg/kg	mg/kg
Phthalates			
Bis-(2-ethylhexyl)phthalate, DEHP	<50	<50	<50
Dibutylphthalate, DBP	<50	<50	<50
Benzylbutylphthalate, BBP	<50	<50	<50
Diisononylphthalate, DINP	<50	<50	<50
Diisodecylphthalate, DIDP	<50	<50	<50
Di-n-octylphthalate, DNOP	<50	<50	<50
Diisobutylphthalate, DIBP	<50	<50	<50
Di-C6-8-branched phthalates, DIHP	<50	<50	<50
Bis-(2-methoxyethyl) phthalate, BMEP	<50	<50	<50
Di-n-hexyl phthalate, DNHP	<50	<50	<50
Di-C7-11-branch. linear phthal. DHNUP	<50	<50	<50
Diisopentylphthalate DiPP	<50	<50	<50
Pentyl-iso-pentylphthalate, PiPP	<50	<50	<50
Diisohexyl phthalate	n.n.	n.n.	n.n.
Dipentylphthalate, branched and linear	<50	<50	<50
Di-n-pentylphthalate, DnPP	<50	<50	<50
Dipentyl phthalate ester	<50	<50	<50
Di-C6-C10-Phthalate-ester	n.n.	n.n.	n.n.
Dicyclohexylphthalate, DCP	n.n.	n.n.	n.n.

Limit values:
100 mg/kg for each phthalate

TDA and MDA

Sample No.	260872-001	260872-002	260872-003
Sample composition	Art. 1	Art. 2	Art. 3
Unit	mg/kg	mg/kg	mg/kg
2,4-Toluyldiamine	<1	3	<1
2,6-Toluyldiamine	<1	1	<1
2,2-Diaminodiphenylmethane	<1	<1	<1
2,4-Diaminodiphenylmethane	<1	<1	4
4,4'-Diaminodiphenylmethane	<1	<1	5

Limit value 5 mg/kg per compound

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2. Summary of methods

Organotin compounds		
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Method description:
In-house method - Determination of organotin compounds after extraction with methanolic solvent and derivatisation. Quantification by GC-MS

Notes:
Quantification equates the DIN EN ISO 17353.

Plasticizer		
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Method description:
In-house method - Determination of selected phthalates after solvent extraction, quantification by GC-MS

Notes:
Quantification equates the DIN EN ISO 18856.

TDA and MDA		
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Method description:
Determination of TDA and MDA after extraction with 0,1% acetic acid, afterwards derivatization with pentafluoropropionic acid anhydride (PFPA) and quantification by LC-MS according to Analytica Chimica Acta 510 (2004) 109-119, deviation in sample preparation 0,4 g on 6 ml

---End of report---