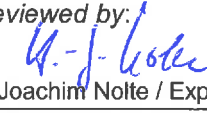


Prüfbericht-Nr.: <i>Test Report No.:</i>	21271240_001	Auftrags-Nr.: <i>Order No.:</i>	3225134-30	Seite 1 von 5 Page 1 of 5	
Kunden-Referenz-Nr.: <i>Client Reference No.:</i>	N/A	Auftragsdatum: <i>Order date:</i>	2017-02-06		
Auftraggeber: <i>Client:</i>	LOTTE ADVANCED MATERIALS EUROPE GMBH, Kölner Str.12, 65760 Eschborn				
Prüfgegenstand: <i>Test item:</i>	Mineral based panels				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	STARON® Solid surface				
Auftrags-Inhalt: <i>Order content:</i>	Point 10 testing the resistance to stain-forming substances / chemicals (method A) and 20 cleaning agents provided				
Prüfgrundlage: <i>Test specification:</i>	DIN EN ISO 19712-2:04.2013 Kunststoffe - Dekorative Mineralwerkstoffe - Prüfverfahren- Plattenware <i>Plastics - Decorative solid surfacing material - Determination of properties - Sheet goods</i>				
Wareneingangsdatum: <i>Date of receipt:</i>	2017-02-03/ 2017-02-08 2017-02-23		Keine Fotodokumentation erforderlich No photo documentation required		
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000152563/A000152889-001 A000154392-001				
Prüfzeitraum: <i>Testing period:</i>	2017-03-06 – 2017-05-15				
Ort der Prüfung: <i>Place of testing:</i>	Goebenstraße 4-10, 32052 Herford				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland LGA Products GmbH, Furniture test lab				
Prüfergebnis*: <i>Test result*:</i>	Siehe Sonstiges / See Other				
geprüft von / tested by:		kontrolliert von / reviewed by:			
2017-07-19  Alexandra Jespersen / Expert		2017-07-19  Hans-Joachim Nolte / Expert			
Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name / Stellung <i>Name / Position</i>	Unterschrift <i>Signature</i>
Sonstiges / Other:		The test results are listed on pages 4 and 5.			
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>		Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged</i>			
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(ass) = entspricht o.g. Prüfgrundlage(n) F(ail) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(ass) = passed a.m. test specification(s) F(ail) = failed a.m. test specification(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens. <i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

Prüfbericht-Nr.: 21271240_001
Test Report No.:

Seite 2 von 5
Page 2 of 5

Liste der verwendeten Prüfmittel
List of used test equipment

Prüfmittel <i>Test equipment</i>	Prüfmittel-Nr. / ID-Nr. <i>Equipment No. / ID-No.</i>	Nächste Kalibrierung <i>Next calibration</i>
Flat ruler, 500 mm	06470	12.2017
Caliper 150 mm	07428	09.2017
Data record	06447	11.2021
Climation room	06515	11.2017
Viewing box	06446	07.2017

Prüfbericht-Nr.: 21271240_001
Test Report No.:

Seite 3 von 5
Page 3 of 5

Produktbeschreibung
Product description

<p>1 Produktdetails <i>Product details</i></p>	<p>Mineral based panels</p>
<p>2 Maße / Gewicht <i>Dimensions / Weight</i></p>	<p>Width: 201 x Length: 201 x Thickness: 11.9 mm</p>
<p>3 Sonstiges <i>Other</i></p>	<p>20 Clieing agent</p> <ol style="list-style-type: none"> 1. Tanet SR 15 (Tana-Chemie) 2. Transil ultra fresh (Tana-Chemie) 3. Sprinter Power (Tana-Chemie) 4. Sterilium (Bode Chemie) 5. TPH Protect (Schülke & Mayr) 6. Micorbac forte (Bode Chemie) 7. Bacillol AF (Bode Chemie) 8. Bacillol 30 Tissues (Bode Chemie) 9. Sterilium classic pure (Bode Chemie) 10. Dismofix G (Bode Chemie) 11. Dismozon Plus (Bode Chemie) 12. Sterilium MED (Bode Chemie) 13. Bacillol AF Tissues (Bode Chemie) 14. Mikrozyd uni vers. Wipes (Schülke & Mayr) 15. Mikrozyd AF liquid (Schülke & Mayr) 16. Mikrozyd sensitive liquid (Schülke & Mayr) 17. Acryl-Des (Schülke & Mayr) 18. Terralin Protect (Schülke & Mayr) 19. Microzyd PAA wipes (Schülke & Mayr) 20. Perform (Schülke & Mayr)

Fig.1: Mineral based panels



Fig.2: Mineral based panels



Prüfbericht-Nr.: 21271240_001 Test Report No.:			
Absatz Clause	DIN EN ISO 19712-2:04.2013 Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse - Bemerkungen Measuring results - Remarks	Bewertung Evaluation
1	Accuracy of measurement		
	The test results have a degree of measurement uncertainty. If applicable, the uncertainty of measurement complies with the requirements of the standards. If the uncertainty of measurement is not separately specified, the combined standard uncertainty of the overall result is $\leq 5\%$.		
2	Stain/ chemical-resistance test Method A		
2.1	Description		
	<p>The specimens shall initially be at ambient temperature. Apply a small quantity (for example 2 or 3 drops) of staining agent to two specimens. The staining agent shall be at the temperature specified in Table 3. Cover the staining agent on one of the two specimens with a glass cover. Keep the specimens flat during the test. After the specified contact time has elapsed, if necessary remove the staining agent with a suitable solvent as recommended by the manufacturer, then wash with water containing a suitable wetting agent, and finally with ethanol or another solvent, as required, to clean the surface. A suitable brush may be used to remove staining agent from textured surfaces. 1 h after washing, place the specimens on the inspection surface and view them from various angles at a distance of 400 mm.</p>		
2.2	Valuation		
	<p>Rating 5: No visible change Rating 4: Slight change in gloss and/or colour, only visible at certain viewing angles Rating 3: Moderate change in gloss and/or colour Rating 2: Marked change in gloss and/or colour Rating 1: Surface distortion and/or blistering</p>		
2.3	Result according to method A / Table 3 (substances marked with *)		
	<p>Group 2 Coffee (120 g of coffee per litre of water) – Rating 4 (open and closed) Group 3 Sodium hydroxide (25 % solution)– Rating 4 (open and closed) Hydrogen peroxide (30 % solution)– Rating 5 (open and closed) Acetone – Rating 4 (open) und Rating 3 (closed) Shoe polish – Rating 2 (open and closed) Group 4 Citric acid (10 % solution)– Rating 5 (open and closed)</p>	<p>P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/></p>	<p>No require- ments</p>

Prüfbericht-Nr.: 21271240_001
Test Report No.:

Seite 5 von 5
Page 5 of 5

Absatz	DIN EN ISO 19712-2:04.2013	Messergebnisse - Bemerkungen	Bewertung
Clause	Anforderungen - Prüfungen / Requirements - Tests	Measuring results - Remarks	Evaluation

2.4	Result after 20 cleaning agents after 16 h exposure / 10 min				
	Cleaning agents	Analysis after 16 h open	Analysis after 16 h closed	Analysis after 10 min open	Analysis after 10 min closed
	Tanet SR 15	Rating 5	Rating 5	./.	./.
	Transil ultra fresh	Rating 4	Rating 4	Rating 5	Rating 5
	Sprinter Power	Rating 5	Rating 5	./.	./.
	Sterilium	Rating 4	Rating 3	Rating 4	Rating 3
	TPH Protect (5 ml/l)	Rating 5	Rating 5	./.	./.
	Micorbac forte (40 ml/l)	Rating 5	Rating 5	./.	./.
	Bacillol AF	Rating 3	Rating 3	Rating 3	Rating 4
	Bacillol 30 Tissues	Rating 5	Rating 5	./.	./.
	Sterilium classic pure	Rating 4	Rating 4	./.	./.
	Dismofix G	Rating 5	Rating 4	./.	Rating 5
	Dismozon Plus (36 g/l)	Rating 5	Rating 5	./.	./.
	Sterilium MED	Rating 4	Rating 3	Rating 5	Rating 3
	Bacillil AF Tissues	Rating 5	Rating 5	./.	./.
	Mikrozyd uni vers. Wipes	Rating 5	Rating 5	./.	./.
	Mikrozyd AF liquid	Rating 5	Rating 3	./.	Rating 4
	Mikrozyd sensitive liquid	Rating 5	Rating 5	./.	./.
	Acryl- Des	Rating 5	Rating 5	./.	./.
	Terralin Protect	Rating 5	Rating 5	./.	./.
	Microzyd PAA wipes	Rating 5	Rating 5	./.	./.
	Perform (30 g/l)	Rating 5	Rating 4	./.	Rating 5