

Boss No. : 502396

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1. Client's name I Tên khách hàng

PIMA COMPANY LIMITED

CÔNG TY TRÁCH NHIỆM HỮU HẠN PIMA

2. Client's address I Địa chỉ

BINH TIEN 2 HAMLET, DUC HOA HA COMMUNE,

DUC HOA DISTRICT, LONG AN PROVINCE

ẤP BÌNH TIỀN 2, XÃ ĐỨC HÒA HẠ, HUYỆN ĐỨC

HÒA, TỈNH LONG AN

The following sample(s) was/were submitted and identified by the client as:

Các thông tin nhận dạng mẫu do khách hàng cung cấp:

3. Name of sample I Tên mẫu

PIMA (PVC) FOAM BOARD / TÂM NHỰA PIMA

4. Quantity / Số lưởng mẫu

: 01 sample / *mẫu*

5. Description / Mô tả mẫu

The specimens were processed for all test items by

the client

Mẫu đã gia công bởi khách hàng cho tất cả các chỉ

tiêu thử nghiêm

6. Date of receiving / Ngày nhận mẫu

29-Jan-2016

7. Date of testing / Ngày thử nghiệm

From / từ 29-Jan-2016 to / đến 23-Feb-2016

8. Test result / Kết quả thử nghiệm

SGS Vietnam Ltd

See next page(s) / Xem trang sau

Signed for and on behalf of SGS Vietnam LTD

Le Tiep Du

Construction Lab Manager Industrial Services

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| Characteristic Tên chỉ tiêu | Unit Đơn vị | Test method Phương pháp thử nghiệm | Test result Kết quả thử nghiệm | |
|---|--------------------------------------|---|--|--|
| • Vicat softening temperature (load 50N, rate 50°C /h (*) / Nhiệt độ hóa mềm Vicat (tải 50N, tốc độ 50°C/h) | °C | ISO 306 : 2013 Method B50 | 75.1 | |
| RoHS Directive 2011/65/EU Annex II / Thử tính độc hại | | IEC 62321 | Comply with requirement Phù hợp với yêu cầu See appendix 1 Xem phụ lục 1 | |
| • Flammability ^(*) I Tính cháy | Flame rating | UL94 - 1997 | HB See appendix 2 Xem phụ lục 2 | |
| • Tensile strength / Độ bền kéo | MPa | ASTM D638 - 14 | 6.5 See appendix 3 Xem phụ lục 3 | |
| • Flexural strength / Độ bền uốn | MPa | ASTM D790 - 15e2 | 16.02 See appendix 4 Xem phụ lục 4 | |
| • Impact strength / Độ bền va đập | ra đập kJ/m² ASTM D256 - 10e1 | | 16.51 See appendix 5 Xem phụ lục 5 | |
| Water absorption / Độ hấp thụ nước | % | ASTM D570 - 98 (R2010 E1) | 0.94 | |

Note: (*) The test was be performed by SGS Vietnam's Subcontract Lab / Chỉ tiêu được tiến hành bởi Thầu phụ của SGS Việt Nam.

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APPENDIX 1 / PHU LUC 1:

| Characteristic I Tên chỉ tiêu | Conclusion / Kết luận | | |
|--|---|--|--|
| RoHS Directive 2011/65/EU Annex II I Thử tính độc hại | Based on the performed tests on selected part of submitted samples, the results of Lead, Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC / Phù hợp với yêu cầu | | |

RoHS Directive 2011/65/EU Annex II

| Test Item(s): | Unit | Test Method | Results | MDL | Limit |
|--------------------------------|-------|---|---------|--------|-------|
| Cadmium(Cd) (*) | mg/kg | With reference to IEC 62321-5:2013 (Determination of Cd by ICP-OES) | n.d. | 2 | 100 |
| Lead (Pb) (*) | mg/kg | With reference to IEC 62321-5:2013 (Determination of Pb by ICP-OES) | 6.0 | 2 | 1000 |
| Mercury (Hg) (*) | mg/kg | With reference to IEC 62321-4:2013 (Determination of Hg by ICP-OES) | n.d. | 2 | 1000 |
| Hexavalent Chromium (CrVI) (*) | mg/kg | With reference to IEC 62321:2008 (Determination of CrVI by UV-VIS) | n.d. | 2 | 1000 |
| Sum of PBBs | mg/kg | | | - | 1000 |
| Monobromobiphenyl | mg/kg | | n.d. | 5 5 | - |
| Dibromobiphenyl | mg/kg | | n.d. | | - |
| Tribromobiphenyl | mg/kg | 3 | n.d. | 5 | - |
| Tetrabromobiphenyl | mg/kg | With reference to IEC 62321:2008 | n.d. | 5 | - |
| Hexabromobiphenyl | mg/kg | (Determination of PBB by GC-MS) | n.d. | 5 | - |
| Pentabromobiphenyl | mg/kg | (Determination of PBB by GC-W3) | n.d. | 5 | - |
| Heptabromobiphenyl | mg/kg | | n.d. | 5 | - |
| Octabromobiphenyl | mg/kg | | n.d. | 5 | - |
| Nonabromobiphenyl | mg/kg | | n.d. | 5 | - |
| Decabromobiphenyl | mg/kg | | n.d. | 5 | - |
| Sum of PBDEs | mg/kg | | n.d. | - | 1000 |
| Monobromodiphenyl ether | mg/kg | | n.d. | 5 | - |
| Dibromodiphenyl ether | mg/kg | | n.d. | 5 | - |
| Tribromodiphenyl ether | mg/kg | | n.d. | 5 | - |
| Tetrabromodiphenyl ether | mg/kg | With reference to IEC 62321:2008 | n.d. | 5 | - |
| Pentabromodiphenyl ether | mg/kg | (Determination of PBDE by GC-MS) | n.d. | 5 | - |
| Hexabromodiphenyl ether | mg/kg | (Determination of 1 DDE by GG-WG) | n.d. | 5 | - |
| Heptabromodiphenyl ether | mg/kg | | n.d. | 5 | - |
| Octabromodiphenyl ether | mg/kg | | n.d. | 5 | - |
| Nonabromodiphenyl ether | mg/kg | | n.d. | 5 | - |
| Decabromodiphenyl ether | mg/kg | | n.d. | 5 | - |

- **Note:** 1. mg/kg = ppm; 0.1wt% = 1000ppm
 - 2. MDL = Method Detection Limit
 - 3. n.d. = Not detected
 - 4. = not regulated

IEC 62321 is equivalent to EN 62321

http://www.cenelec.eu/dyn/www/f?p=104:110:721668440899381::::FSP_PROJECT,FSP_LANG_ID:20662,25.

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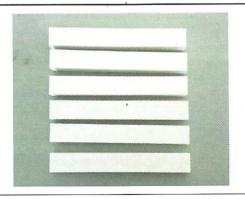
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APPENDIX 2 / PHU LUC 2:

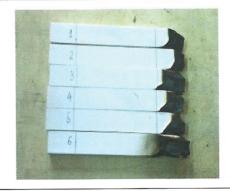
| Characteristic / Tên chỉ tiêu | | | : | Flammability ^(*) I Tính cháy | | | | | |
|--|-----------------|-----------------|---|--|--|------|--|--|--|
| Description / Mô tả mẫu | | | : | Sample material is in solid form and invory color Mẫu vật liệu dạng khối đặc, màu trắng ngà. Thickness / Chiều dày: 11.5mm | | | | | |
| Date of testing I Ngày thử nghiệm | | | : | From / từ 17-Feb-2016 to / đến 21-Feb-2016 | | | | | |
| Test method I Phương pháp thử | | : | UL94 - 1997 | | | | | | |
| Testing apparatus / Thiết bị thử nghiệm | | : | Single-Flame source test chamber / Hệ thống thử nghiệm tính bắt cháy bằng mồi lửa nhỏ | | | | | | |
| Ambient temperature I Nhiệt độ môi trường | | : | 22°C | | | | | | |
| Specimen Ký hiệu Time of burning I Các thời điểm cháy của mẫu (sec) | | F | lame stop point Điểm tắt cháy | Observations during the test Ghi nhân khác trong thử nghiệm | | | | | |
| mẫu | t _{ch} | t ₂₅ | t ₁₀₀ | t _{tắt} | | (mm) | Gili illiğli kilac trong tila rigilişlir | | |
| 1 | 1 | 0 | 0 | 31 | | < 25 | | | |
| 2 | 1 | 0 | 0 | 31 | | < 25 | Black smoke emitted, burned | | |
| 3 | 1 | 0 | 0 | 34 | | < 25 | materials was shrinked | | |
| 4 | 1 | 3 0 . | 0 | 32 | | < 25 | Tỏa ra khói đen, phần mẫu cháy bị xun lại | | |
| 5 | 1 | 0 | 0 | 31 | | < 25 | | | |
| 6 | 1 | 19 | 0 | 31 | | <100 | | | |

Flammability class according to UL 94 / Phân cấp tính cháy theo UL 94:

HB



Samples before testing I Mẫu trước khi thử nghiệm



Samples after testing / Mẫu sau khi thử nghiệm

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Denoted I Ký hiệu:

t_{ch}: Time that specimen ignited under the impingement of pilot flame / Thời điểm mẫu bắt lửa tính từ khi chịu tác động của ngọn lửa mồi

t₂₅: Time flame front reaches 25 mm benchmark / Thời điểm ngọn lửa chạm đến vạch mốc 25 mm

t_{iåi}: Time that burning of specimen cease with pilot flame removed / Thời điểm ngọn lửa trên mẫu tự tắt sau khi rút ngọn lửa mồi

tiá: Time that burning of specimen cease with pilot flame removed / Thời điểm ngọn lửa trên mẫu tự tắt sau khi rút ngọn lửa mỗi

Remarks / Ghi chú:

- (*) The test was be performed by SGS Vietnam's Subcontract Lab / Chỉ tiêu được tiến hành bởi Thầu phụ của SGS Việt Nam
- 1- Specimens are selected and delivered to laboratory by the client / Mẫu do khách hàng lấy và cung cấp đến phòng thí nghiệm;
- 2- The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire hazard of the product in use / Các kết quả thí nghiệm chỉ cho biết ứng xử của mẫu vật liệu trong những điều kiện tiêu chuẩn của thí nghiệm. Việc đánh giá mức độ nguy hiểm cháy của loại sản phẩm này cần căn cứ vào những chỉ tiêu cụ thể theo yêu cầu sử dụng, không chỉ căn cứ hoàn toàn vào những kết quả trên.

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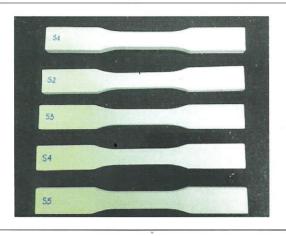
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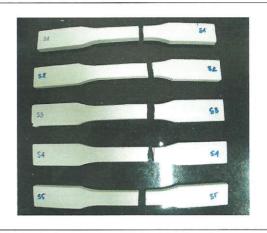
APPENDIX 3 / PHU LUC 3:

These figures describe tensile test / Hình ảnh mô tả phần thử nghiệm độ bền kéo

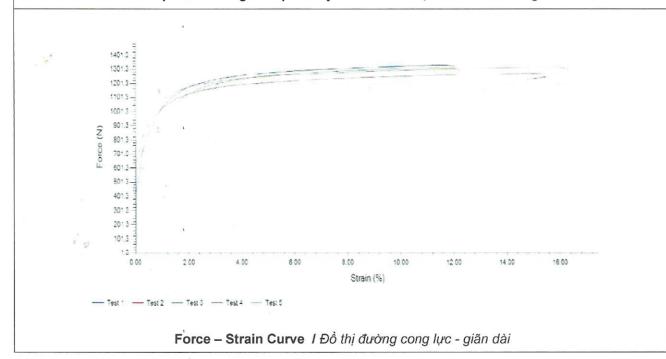
Samples before testing I Mẫu trước khi thử nghiệm

Samples after testing I Mẫu sau khi thử nghiệm





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APPENDIX 4 / PHU LUC 4:

These figures describe flexural test / Hình ảnh mô tả phần thử nghiệm độ bền uốn

Samples before testing / Mẫu trước khi thử nghiệm

Samples after testing / Mẫu sau khi thử nghiệm

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APPENDIX 5 / PHU LUC 5:

These figures describe impact test I Hình ảnh mô tả phần thử nghiệm độ va đập

Samples before testing I Mẫu trước khi thử nghiệm

Samples after testing I Mẫu sau khi thử nghiệm

Signature of the samples after testing I Mẫu sau khi thử nghiệm

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Signature of the samples after testing I Mãu sau

*** END OF THE REPORT ***

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