



Solution Dyed Nylon – Mix Bac Carpet Tiles

BPIR Declaration

Version 2.0 April 2024

Designated Building Product: Class 1

Declaration

Robert Malcolm Limited has provided this declaration to satisfy the provisions of Schedule 1 (d) of the Building (Building Product Information Requirements) Regulations 2022. See [Regulations](#)

Company Details

Name: Robert Malcolm Limited
Role: Supplier
NZBN: 9429031999632
Address: 10 Establishment Drive, Hornby South, Christchurch 8042
Website: www.robertmalcolm.co.nz
Email: office@robertmalcolm.co.nz
Phone: 03 366 9839
Manufacturer: Voxflor Industrial Park Co. Limited www.voxflor.com

Description of the Building Product

Voxflor mix bac carpet tiles (refer product summary below) are commercial grade, with multi-level loop pile construction comprising of solution dyed nylon face yarn, polypropylene primary backing, latex layer, bitumen layer and secondary Mix Bac (recycled PET *polyethylene terephthalate*) backing. Carpet tiles are generally installed by fixing the carpet tile to the substrate with adhesive, these products are suitable for installation on stairs when used in conjunction with a compatible stair nosing.

Voxflor Mix Bac carpet tiles are available in a range of formats that vary in design and size – please refer to the product summary below.

Robert Malcolm Solution Dyed Nylon – Mix Bac Carpet Tile Product Summary

| Name | Dimensions | Pack Size | Wear Warranty Commercial Use |
|-------------------|------------------|------------------------|---------------------------------|
| City Star Mix Bac | Tile - 50 x 50cm | 20 Tiles / 5m2 per box | 15 years |
| Mineral Mix Bac | Tile - 50 x 50cm | 20 Tiles / 5m2 per box | 15 years |

Sustainability

Voxflor, the manufacturer, considers the sustainability of their products and business practices by actively engaging in the following:

- Declare Label
- Green Label Plus
- LEED Certification
- Living Building Challenge Certification

Building Code Obligations

| B2 Durability | | |
|--|---|---|
| <p>B2.3.1 (c) Building elements must, with only normal maintenance continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated or: (c) 5 years if (i) the building elements (including services, linings, renewable protective coatings and fixtures) are easy to access and replace, and (ii) failure of those building elements to comply with the building code would be easily detected during normal use of the building</p> | | |
| Evidence | Rationale | |
| Traffic Classification | Commercial Heavy Duty Robert Malcolm Limited provide the following warranty on Voxflor solution dyed nylon, Eco Ace backed products: -15 year wear resistance warranty -15 year dimensional stability warranty -15 year delamination warranty -15 year castor chair warranty -15 year stain warranty -Lifetime static warranty | |
| Wear Tests | Further test results within the product specification sheet demonstrating evidence of durability during normal use of the product. | |
| Hexapod drum test ASTM D5252 | Standard ≥ 3-4 | Test Result 3 |
| Castor Chair BS EN 985 | R ≥2.4 | R = 2.8 |
| Stability | | |
| Delamination ASTM D3936 | ≥ 3.0 lbc/in | No separation |
| Dimensional Stability AACHEN | ≤ 0.2 | ≤ 0.2 |
| B2/VM1 1.1.1 In-service history | Robert Malcolm Ltd have been supplying Voxflor solution dyed nylon ranges to the New Zealand market since 2013. Voxflor products have been manufactured since 1997 in China. This satisfies the performance requirements of the Building Code for a period of 5 years as the floor covering is easy to access and replace, and failure of the product would be easily detected during normal use of the product. | |
| C3 Fire affecting areas beyond the fire source | | |
| C3.4(b) Floor surface materials in the following areas of buildings must meet the performance criteria specified below: | | |
| Area of Building | Minimum critical radiant flux when tested to ISO 9239-1:2010 | |
| | Buildings not protected with an automatic fire sprinkler system | Buildings protected with an automatic fire sprinkler system |
| Sleeping areas and exitways in buildings where care or detention is provided | 4.5 kW/m ² | 2.2 kW/m ² |
| Exitways in all other buildings | 2.2 kW/m ² | 2.2 kW/m ² |
| Firecells accommodating more than 50 persons | 2.2 kW/m ² | 1.2 kW/m ² |
| All other occupied spaces except household units | 1.2 kW/m ² | 1.2 kW/m ² |

| | | | | |
|---|--|---------------------------------------|---------------------------------------|---------------------------------------|
| Evidence | Rationale | | | |
| AWTA Product Testing AS / ISO 9239-1 : 2003 | AWTA is an independent testing facility engaged by Robert Malcolm Ltd to perform inflammability tests. Test results on these products are available, please refer to the table below and supporting documents. Test results confirm that the performance requirements outlined in the table above are satisfied. | | | |
| Range | Date of Test | Test Number | Mean Critical Radiant Flux | |
| City Star Mix Bac | 24/8/2017 | 17-004435 | 8.6 kW/m2 | |
| Mineral Mix Bac | 7/9/2021 | 21-003421 | 4.5 kW/m2 | |
| D1 Access Routes | | | | |
| D1.3.3(d) Access routes shall: -Have adequate slip resistant walking surfaces under all conditions of normal use D2.1.2(b) For level access routes (including level accessible routes) expected to become wet with water in normal use, walking surfaces shall either: a) Have an SRV classification of not less than 39 from the wet pendulum test method of AS 4586 Appendix A using the Slider 96 rubber, or b) Use the materials listed in Table 2 as 'acceptable wet slip' | | | | |
| Table 2: Slip Resistance for Walking Surfaces | | | | |
| Walking Surface | Level Surface | | Sloping Surface or Stairs | |
| | Acceptable dry slip resistance | Acceptable wet slip resistance | Acceptable dry slip resistance | Acceptable wet slip resistance |
| Carpet Tufted or Loop Pile | Yes | Yes | Yes | Yes |
| Evidence | Rationale | | | |
| Table 2 (above) | Table 2 above confirms that Voxflor products listed in the product summary meet the performance requirement of the Building Code D1.3.3(b) as an Acceptable Solution under dry or wet conditions on both level, and sloping surfaces or stairs. | | | |
| F2 Hazardous building materials | | | | |
| F2.1 The objective of this provision is to safeguard people from injury and illness caused by exposure to hazardous building materials F2.3.1 The quantities of gas, liquid, radiation or solid particles emitted by materials used in the construction of buildings shall not give rise to harmful concentrations at the surface of the material where the material is exposed, or in the atmosphere of any space. | | | | |
| Evidence | Rationale | | | |
| CRI Green Label GLP100231 | Total VOC's 0.5mg/m3 or less | | | |
| Declare Label VOX-003 | Living Building Challenge Criteria: Compliant LBC Red List Free | | | |
| G6 Airborne and impact sound | | | | |
| G6.3.1 <i>The Sound Transmission Class</i> of walls, floors and ceilings, shall be no less than 55 G6.3.2 <i>The Impact Insulation Class</i> of floors shall be no less than 55 | | | | |
| Evidence | Rationale | | | |
| BS EN ISO 354 | Absorption Coefficient – NRC = 0.30 (City Star Acoustic) Absorption Coefficient – NRC = 0.25(H) (Mineral Acoustic) | | | |

Scope of Use and Limitations

Building Work

| Scope | Limitation |
|---|---|
| In conjunction with a substrate and primary structure that complies with the NZ Building Code, or where the primary structure is the equivalent stiffness to the framing provisions of NZS 3604: 2011 | -Installation must be in accordance with Flooring Standards AS/NZS 2455.1:1:2007 Textile floorcoverings – Installation practice Part 1: General & Part 2: Carpet tiles -Installation must be in accordance with Floor NZ Best Practice Guidelines for the New Zealand Flooring Industry – Carpet Floor Coverings Planning and Installation |
| For all building classified uses | -For commercial and industrial uses, refer to Robert Malcolm Limited for warranty details and exclusions -Robert Malcolm carpet tiles are only suitable for use in interior situations that are dry under normal use |
| Stain resistance warranty | -Excludes non-food and non-beverage stains caused by substances such as cosmetics, bleaches, inks and waxes. Refer to Robert Malcolm Limited for further details |
| Suitable for installation on stairs | -A compatible stair nosing must be used for installation of Robert Malcolm carpet tiles on stairs |

Conditions of Use

Voxflor Mix Bac carpet tiles must be installed and maintained in accordance with all of the Robert Malcolm requirements.

Warning or Ban

This building product line is not subject to a warning or ban under section 26 of the Building Act 2004.

Additional Information

For all design, installation and maintenance-related information, and for information supporting Robert Malcolm claims, refer to www.robertmalcolm.co.nz

Product Links

City Star Mix Bac

<https://www.robertmalcolm.co.nz/contact-us/bpi-library/#city-star-mix-bac>

Mineral Mix Bac

<https://www.robertmalcolm.co.nz/contact-us/bpi-library/#mineral-mix-bac>