MetaMark Reference Material





Introduction

Metamark warrants to its customers that graphics and markings produced using Metamark products will remain in satisfactory condition for a term no less than that defined as the expected durability as detailed in Metamark's technical bulletins. Listed external durability's are on based on vertical exposure under Northern European conditions (this refers to the unprinted vinyl, refer to ink manufacturer for durability of the finished product). The product will remain in satisfactory condition, effective for its intended purpose, and not deteriorate excessively, eg: from shrinkage or discolouration, within the listed durability term.

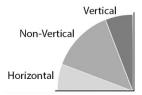
The regional climate of a country is the main factor which will reduce the expected performance, along with the angle and exposure of the application. Other points to consider are preparation of the substrate, method of application, cleaning and maintenance process. The user must take must ensure that graphics and markings produced using Metamark products are suitable for their intended use and installed in accordance with the published methods and best practices.

Angles of Exposure

Graphics will be affected and external durability altered depending on the angle and exposure. The different angles of exposure are detailed as follows:

Vertical Exposure: ± 10° from vertical

Non-Vertical Exposure: 11° to 69° from vertical Horizontal Exposure: 70° - 90° from vertical



Zone Durability

The below figures show the external performance in years expected in the different listed zones. These are determined by regional climate and angle of exposure.

| Vertical Exposure |
|-------------------|
| Zone 1 |
| 10 |
| 8 |
| 7 |
| 6 |
| 5 |
| 4 |
| 3 |
| 2 |
| 1 |

| Vertical Exposure | | | | | |
|-------------------|--------|--|--|--|--|
| Zone 2 | Zone 3 | | | | |
| 8 | 6 | | | | |
| 6 | 4 | | | | |
| 5 | 3.5 | | | | |
| 4 | 2 | | | | |
| 3 | 1.5 | | | | |
| 2 | 1 | | | | |
| 1.5 | 0.5 | | | | |
| 1 | - | | | | |
| 0.5 | - | | | | |

| Non-Vertical, Horizontal Exposure | | | | | | | |
|-----------------------------------|-------------------------------------|--|--|--|--|--|--|
| Zone 2 | Zone 3 | | | | | | |
| 4 | 3 | | | | | | |
| 3 | 2 | | | | | | |
| 2.5 | 1.5 | | | | | | |
| 2 | 1 | | | | | | |
| 1.5 | 0.5 | | | | | | |
| 1 | - | | | | | | |
| 0.5 | - | | | | | | |
| - | - | | | | | | |
| - | - | | | | | | |
| | Zone 2 4 3 2.5 2 1.5 | | | | | | |

For further technical support email technical@metamark.co.uk or call +44 (0)1483 571111

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Zones Defined

The durability of a product is effected by the regional climate. Countries have been categorised into three separate groups depending on their region and climate.

| Zone 1 | Zone 2 | | Zone 3 | | |
|----------------|---------------|-----------------|------------------------|---------------------|-------------------|
| Andorra | Argentina | Singapore | Afghanistan | Indonesia | Sri Lanka |
| Austria | Armenia | Solomon Islands | Albania | Iran | St. Kitts & Nevis |
| Belarus | Australia* | South Africa | Algeria | Iraq | St. Lucia |
| Belgium | Azerbaijan | South Korea | Angola | Israel | Sudan |
| BIH | Bangladesh | Spain | Antigua & Barbuda | Jamaica | Suriname |
| Bulgaria | Bhutan | Taiwan | Australia ¹ | Jordan | Swaziland |
| Canada | Bolivia | Tajikistan | Bahamas | Kenya | Syria |
| Croatia | Brazil | Thailand | Bahrain | Kiribati | Tanzania |
| Czech Republic | Brunei | Togo | Barbados | Kuwait | Timor-Leste |
| Denmark | Cambodia | Tonga | Belize | Lebanon | Trinidad & Tobago |
| Ecuador | Chile | Tunisia | Benin | Libya | Tuvalu |
| Estonia | China | Turkey | Botswana | Madagascar | Uganda |
| Finland | Cote d'Ivoire | Turkmenistan | Burkina Faso | Malawi | UAE |
| France | Cyprus | USA* | Burundi | Maldives | USA ² |
| Georgia | Fiji | Uruguay | Cabo Verde | Mali | Vanuatu |
| Germany | Ghana | Uzbekistan | Cameroon | Marshall Islands | Venezuela |
| Hungary | Greece | Vatican City | Central African Rep. | Mauritania | Yemen |
| Iceland | India | Vietnam | Chad | Mauritius | Zambia |
| Ireland | Italy | | Colombia | Mexico | Zimbabwe |
| Kosovo | Japan | | Comoros | Morocco | |
| Latvia | Kazakhstan | | Congo | Mozambique | |
| Liechtenstein | Kyrgyzstan | | Costa Rica | Namibia | |
| Lithuania | Laos | | Cuba | Nauru | |
| Luxembourg | Lesotho | | Djibouti | Nicaragua | |
| Macedonia | Liberia | | Dominica | Niger | |
| Moldova | Malaysia | | Dominican Republic | Oman | |
| Monaco | Malta | | Egypt | Palau | |
| Montenegro | Micronesia | | El Salvador | Palestine | |
| Netherlands | Mongolia | | Equatorial Guinea | Panama | |
| Norway | Myanmar | | Eritrea | Papua New Guinea | |
| Poland | Nepal | | Ethiopia | Qatar | |
| Romania | New Zealand | | Gabon | Rwanda | |
| Russia | Nigeria | | Gambia | Samoa | |
| Serbia | North Korea | | Grenada | Sao Tome & Principe | |
| Slovakia | Pakistan | | Guatemala | Saudi Arabia | |
| Slovenia | Paraguay | | Guinea | Senegal | |
| Sweden | Peru | | Guinea-Bissau | Seychelles | |
| Switzerland | Philippines | | Guyana | Sierra Leone | |
| Ukraine | | | | | |
| UKI allie | Portugal | | Haiti | Somalia | |

*Exceptions stated in Zone 3

¹Northern Territory, Queensland*, Western Australia** (*Brisbane and **Perth Zone 2) ²Arizona, California, Florida, Nevada, New Mexico, Texas, Utah

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