# PRODUCT INFORMATION

**TECHNICAL DATASHEET**
12/20/2022

## HYPERLAST EMH 80D Natural

### Introduction

HYPERLAST™ EMH is a two component sprayable rigid coating that offers excellent abrasion, impact and anti-corrosive properties. This coating can be applied to a wide variety of substrates when used with the appropriate primer. It has been designed to be applied through 1:1 volumetric high pressure plural component impingement mixing spray equipment and due to its rapid reaction time produces a sprayed film which is touch dry in seconds. This allows both horizontal and vertical surfaces to be coated in one single application.

### Component Properties

**Polyol Component**

| | |
|---|---|
| Product Reference | HYPERLAST™ EMH 80D Polyol |
| Appearance | Unpigmented Liquid at 25°C |
| Viscosity | 300 – 1000 cps at 25°C |
| Specific Gravity | 1.00 – 1.04 at 25°C |

**Isocyanate Component**

| | |
|---|---|
| Product Reference | HYPERLAST™ 5257 Isocyanate |
| Appearance | Pale Straw Liquid at 25°C |
| Viscosity | 530 – 750 cps at 25°C |
| Specific Gravity | 1.21 – 1.23 at 25°C |

**Mixed System**

| | |
|---|---|
| Mixing Ratio | 0.91:1 by weight (Polyol : Isocyanate) |
| Gel Time | 0' 5" - 0' 10" (100 gms at 25°C) |

These are typical values and should not be construed as specifications.

## Cured System – Typical Properties

| Property | Test Method | Value | Unit |
|---|---|---|---|
| Shore Hardness | BS 2782 Meth 365B | 75 - 80 | °D |
| Tensile Strength | BS 903 Pt A2 | 38 | MPa |
| Elongation at Break | BS 903 Pt A2 | 7 | % |
| Izod Impact Strength (Notched) | BS 2782 Method 350 | 3.3 | KJ/m2 |
| Flexural Modulus | ASTM D790 | 1900 | MPa |
| Flexural Strength | ASTM D790 | 67 | MPa |
| Youngs Modulus | ASTM D638 | 1350 | MPa |
| Heat Distortion Temperature | BS 2782 Meth 121A/B | 75 | °C |
| Density | BS 903 Pt A1 | 980 | Kg/m3 |

These are typical values and should not be construed as specifications.

## Processing Details

The following information is given as a guide to processing this product. It is recommended that optimum conditions for a specific application are determined experimentally. Our Technical Service Department can offer more detailed advice.

### Recommended Processing Temperatures

| | |
|---|---|
| Polyol Component | 60 - 70 °C |
| Isocyanate Component | 65 - 75 °C |
| Mould Temperature | Consult our Technical Service Department |
| Recommended Spray Pressure | 2,200 – 2,850 psi |
| Recommended Module and Tip Size | AF2929 and 424 - 438 |

These are typical values and should not be construed as specifications.

## Recommended Cure Cycle

Cure at 80 °C for 1 – 2 hours to reach full properties.

## Additional Processing Details

Pre-condition the materials at 40 – 50 °C and then raise to the processing temperature. Ensure the polyol is of a homogeneous consistency. Our Technical Service Department can give general information on the types of machine processing available for our spray applied elastomer systems.

## Storage and Handling

| | | Shelf life |
|---|---|---|
| Polyol Component | Store in tightly sealed containers at a temperature of 0 - 30°C. Raise to the processing temperature and mix well before use. Avoid contact with moisture. Storage at low temperatures may result in freezing of the polyol component, should this occur it should be melted out by raising to the processing temperature and mixed thoroughly before use. | 12 months |
| Isocyanate Component | Store in tightly sealed containers at a temperature of 25 - 35°C. Avoid contact with moisture. Storage below the recommended minimum temperature may result in freezing of the Isocyanate. If the Isocyanate does not fully melt out when raised to the processing temperature it may be necessary to re-melt at a temperature of 60 - 70°C following the procedures laid down in the information sheet 'Safe Handling – Pure, Modified and Polymeric MDI' Form No. 109-01224X-1009P&M. | 6 months |

More detailed information on the storage and handling of polyurethane components can be obtained by contacting Dow Technical Service Department.

## Packaging

| | |
|---|---|
| Polyol Component | 25 kg, 200 kg |
| Isocyanate Component | 25 kg, 225 kg |

**Product Stewardship**

The Dow Chemical Company and its subsidiaries ("Dow") has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our Product Stewardship program rests with each and every individual involved with Dow products — from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

**Safety Considerations**

Safety Data Sheets (SDS) are available from The Dow Chemical Company (Dow). SDS are provided to help customers satisfy their own handling, safety and disposal needs, and those that may be required by locally applicable health and safety regulations. SDS sheets are updated regularly. Therefore, please request and review the most current SDS before handling or using any product. Copies of the SDS are available on request through the nearest Dow Sales office.

**Customer Notice**

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to help ensure that Dow products are not used in ways for which they were not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products.

**Contact information:**
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