

# PU-MB-40

Polyurethane Spray System MB-40 is a two component, fluorocarbon blown, Polymeric M.D.I. based system for producing rigid Urethane foam with a nominal core density of 40 KG/M3 by spray process, this has been designed especially for roof applications.

The preferred spray machine is a Gusmer FF or H-II with suitable spray gun.

### Components Properties and Storage Characteristics.

ISO component is a dark brown colored undistilled grade of Polymeric Diphenyl Methane Di-isocynate (Crude M.D.I). This is to be stored at room temperature in sealed drums. Moisture will react with this component to produce a surface skin or polymerized material. Care should be taken to close all drums after use.

|                  |        |               |
|------------------|--------|---------------|
| Viscosity        | @ 25 C | 150 – 200 CPS |
| Specific gravity | @ 25 C | 1.24          |

Polyol Component is a blend of Polyols, Fluorocarbon blowing agent, catalysts and Stabilizers.

It should be stored below 24 C in sealed drums.  
Drums should be closed soon after use to prevent loss of blowing agent and absorption of moisture.

|                  |        |                   |
|------------------|--------|-------------------|
| Viscosity        | @ 20 C | 450 CPS (approx.) |
| Specific gravity | @ 20 C | 1.18              |

Component Mix Ratio – 1:1 by volume.

Total reaction rate and density (Laboratory cup mix)

|                   |                 |
|-------------------|-----------------|
| Both components   | @ 20 C          |
| Cream time        | 5 – 8 seconds   |
| Tackfree time     | 15 – 25 seconds |
| Free rise Density | 30 – 32 Kg/M3   |

Reaction will vary slightly depending on ambient temperature and the type of machine used.



## TECHNICAL DATA

Typical physical properties MB-40

| <b><u>Method</u></b>   | <b><u>Unit</u></b>                        | <b><u>Value</u></b> | <b><u>Test</u></b> |
|--|---|---------------------|--------------------|
| Sprayed core density<br>ASTM-D 162 2                               | KG/M3                                     | 38-40               |                    |
| Thermal Conductivity<br>ASTM-C 177 63                              | W/M K                                     |                     |                    |
| Initial  |   | 0.017               |                    |
| Aged   |   | 0.022               |                    |
| Compressive Strength<br>Parallel to rise<br>D1 1621 64             | KG/CM2                                    | 2.82-3.5            | ASTM               |
| <b>Tensile Strength</b>  |   |                     |                    |
| With rise<br>1621 64   | KG/CM2                                    | 3.2-3.5             | ASTM-              |
| Dimensional Stability<br>(Linear change)<br>7 days at 70 C 100% RH | %   | <1-0                |                    |
| 7 days at 100 C dry heat<br>2166-66                                | %   | + 1.5               | ASTM-I             |
| 7 days at 20 C 100% RH   | %   | < 2-0               |                    |
| Closed cell content<br>2856-70                                     | %   | 92-94               | ASTM-I             |
| Water vapor permeability<br>Without facing<br>355                  | Perm/inch                                 | 1.5                 | ASTM               |
| Water absorption (Max.)<br>2842                                    | %   | By vol. 1.5         | ASTM-              |
| Burning characteristics<br>1692 74                                 | Fire retarded<br><br>(Self Extinguishing) |                     | ASTM-              |

