

HM1000 – Technical Data Sheet

HOTMELT- HM1000

Product Description

HM1000 hot melt butyl insulating glass sealant is formulated from the highest quality synthetic polymers and elastomers, butyl rubber and resins to deliver outstanding adhesion to glass and metal/plastic spacers when applied as an edge seal to multiple glazed window units.

The high performance sealant has been specifically and exclusively developed for insulating glass manufacturers. It's fast flowing, low stringing and quick setting properties make it ideal for IG producers requiring the ability to handle and move sealed units within a short time of production. HM1000 is resistant to degradation from UV light, temperature extremes and exposure to water.

Features, Properties and Performance Data

- Fully suited to all known makes of hotmelt sealant application machines
- Single Component thermoplastic properties with no waste from machine purging after use
- Compatible with all glass types and coatings
- Rapid cooling and setting, allowing handling and moving without delays
- Fast flowing, smooth, negligible low slump and stringing makes HM1000 the ideal production material
- Very low Moisture Transmission (MVTR) and Argon Permeability Rates

Typical Technical Performance Properties

Application Temp.	180 °C – 200 °C
MVTR (Moisture Vapour Transmission Rate)	0,04 +/- 0,01 (gr H ₂ O) / (m ² x 24 h x 2 mm)
Argon Permeability Rate	2 +/- 0,5 x 10 ⁻³ x gr / (m ² x h)
Thermal Conductivity	0.22 W / mK
RT Overlap Shear Strength	3 bar

Characteristics

Appearance	Black, glossy and tacky surface
Shelf Life	min. Two Years in unopened original packaging, stored in a cool, dry place
Form and Packaging	6,5 kg Blocks, 220 kg Steel Drums
Raw Material Base	Blend of Synthetic Resins and butyl rubber
Density/Specific Gravity	appr. 1.15 kg/liter (g/cm ³)

Application Limitations

HM1000 is compatible with low E coatings. Low- E and other coatings must be edge deleted before manufacture of IG units to allow full contact of HM1000 to the clean glass surface. It should **not** be used in non-edge deleted applications unless approved by the glass supplier. HM1000 is not intended for structural glazing applications. HM1000 should only be used in sloped glazing applications after review by a design specialist. It should not be used if the IG is unframed or unsupported. The workplace should be kept clean to avoid contamination of glass or spacers during assembly, and the ambient temperature of the glass and spacers is best kept above +15°C for optimum results. Contact between HM1000 hot melt butyl edge seal and any solvent- or oil-containing glazing compound should be avoided.

Surface Preparation

Glass must be cleaned before using the HM1000 hot melt sealant. We suggest following your glass washer or glass supplier's recommended practices for glass washing. Good practices include using hot water (50 °C - 60 °C) and detergent. Contaminants like oil, dust, corrosion and dirt negatively affect the adhesion of any sealant. Check for cleanliness by taking a clean white cloth and wiping the spacer. Any noticeable particles or oils must be removed prior to manufacturing. Solvents should not be used for cleaning the units before glazing.

Safety Data

Health and Safety Data measures must be observed when handling hot materials, including Hotmelt Sealants. In particular we recommend suitable heat resistant gloves and clothing and eye protection to minimize risk of burns. Follow the manufacturer's instructions for use of the application machine and observe the sealant temperature recommendations. Use a digital thermometer to regularly check the temperature of sealant at the point it exits the application nozzle. To minimize the risk of flammable vapors, do not exceed a melt temperature of 245°C. Extinguish all sources of ignition during hot melt use. Use in a well-ventilated area. Consult MSDS (Material Safety Data Sheet) for further information.

WARNING:

EXTREME CARE SHOULD BE EXERCISED WHEN WORKING WITH HOT MELTS IN THEIR HOT, FLUID STATE.

Severe burns will result if skin contact occurs. When moving a hot melt from one location to another, protective Gloves should be worn. If skin contact occurs, immediately immerse contact area in cold, clean water for at least 30 minutes. Cover contacted area with a wet, clean compress, and see a physician immediately.

Packaging & Shelf Life

HM1000 hot melt sealant is packaged and shipped in blocks or drums. HM1000 hot melt sealant has a shelf life of two year from the date of manufacture.

Disposal

In most localities, empty pails or drums may be crushed and sent to a local landfill. Since local landfills have the right to refuse any material, check first. Check with the local drum recycler to see if they will accept the empty drums for recycling. Empty drums or pails also may be discarded as scrap metal for a local scrapping company. Check the Material Safety Data Sheet for disposal requirements.