

SPECIFICATION FOR MASTIC MATERIALS & INSTALLATION

Revised on 22-02-2022

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SPECIFICATIONS FOR MASTIC MATERIAL

1.0 General Requirement

“Mastic” is a cold applied, self-adhesive, moldable and self-supporting for sealing, filling and caulking application where a protective, waterproof and non-setting material is required. Profiling primer/mastic and petrolatum tapes shall contain a petrolatum compound containing inert siliceous fillers and shall not contain volatile organic compounds. Mastic shall be “self supporting”, and “non cracking” and “non hardening” and shall remain impervious to moisture at the wide temperature range (tropical grade application).

This shall be highly resistant to mineral acid, alkalis, salts and mechanical stress over a wide temperature range. It is specially recommended around pipes to prevent the water seeping through the joint. This is used for moulding around irregular profiles such as flanges, mechanical joints, and valves to provide a contour suitable for wrapping with anti-corrosion tapes.

The cell cellular polymer, flow control additives or reinforce fiber contain mastic not accepted due to hard at the tropical applications.

2.0 Technical Properties:

Properties of Primer, Mastic Paste, Mastic Tape and Outer Wrapping Tape shall be as given below.

Mastic Primer

TYPICAL PROPERTIES	DATA
Specific Gravity at 25 ⁰ C	0.85 – 1.25
Flash Point minimum ⁰ C	65
Drop melting point, minimum ⁰ C	56
Cone penetration at 25 ⁰ C, 100g wt,5sec;mm	7.4 – 25.0
Petrolatum or petroleum wax content, minimum, percent by weight	70%

Mastic Paste

TYPICAL PROPERTIES	DATA
Specific Gravity, minimum 25 °C	1.1
Flash Point ,minimum °C	180
Maximum Service Temperature °C	90
Maximum application temperature °C	70

Note : The maximum Specific Gravity of Mastic Paste shall be as per the Manufacturers specification catalogue and it shall not exceed at the maximum service temperature of 90°C.

Mastic Tape

TYPICAL PROPERTIES	DATA
Flash Point minimum °C	150
Drop melting point of saturant , minimum °C	60
Thickness, minimum , mm	1.016
Breaking Strength, width ,minimum, (N/m)	3152
Elongation at break, minimum, percent (%)	6
Petrolatum or petroleum wax components applied to fabric carrier, percent by weight	50% - 70%
Maximum Service Temperature °C	70

Outer Wrapping Tape

TYPICAL PROPERTIES	DATA
Thickness, minimum , (µm)	120
Tensile Strength ,minimum (Mpa)	18
Elongation at break (%)	≥150%
Service temperature (°C)	60
Specific material property required	Shall be a UV protective material

3.0 Application

The following procedure shall be applied for the protection of flanged joints.

1. Pipe joints and adjacent area of pipe shall be cleaned and all loose scale rust and dirt, etc removed before protection materials are applied.
2. The application of continuous coating of petroleum paste over the whole area to be protected as a primer, including bolt heads, nuts, flanges etc.
3. Where bolt heads, nuts, flanges and other projections arises, profiling mastic shall used to give a smooth external profile, extending upto the end of the special wrapping to form a tapered profile.
4. Flange joint including Bolt heads, nuts, flanges and other projections and hollows shall be filled with a profiling mastic to give a smooth external profile to suit the smooth wrapping.
5. The joint shall be spirally wrapped with a self adhesive protective tape. Minimum application shall be a spiral wrap with 55% overlap. Care should be taken to ensure that tape is in contract with the under laying surface to prevent wrinklers or air pockets. The tape shall extent minimum of 150mm along the barrel of the pipe on each side of the joint and finished smooth so that no water shall seep through the wrapping.
6. For further protection, a separate overwrap of PVC self adhesive tape or clear outerwrap may be applied spirally over the petrolatum tape.