



POLYLOC 170 & 271

Two Coat Rubber Lining Adhesive System. Tacky Cover Coat Formulation.

Polyloc 170 & 271 is a two coat adhesive system for use in natural rubber based rubber lining to metals. They are used in the manufacture of various industrial items used in the mining, chemical and process industries including the lining of storage tanks, scrubbers, pipes, barges, etc.

Features of Polyloc 170 & 271

Economical: The price of general purpose grades of adhesives is substantially higher without any increase in bond performance or productivity.

Versatile curing range: The curing range of these grades (75°C to 170°C) is more suitable for rubber lining as compared to general purpose grades where curing starts after 120°C. Lining is thus possible by autoclave, open steam, hot water, etc. allowing greater flexibility, especially for on-site lining jobs.

Shorter process: Polyloc 271 dries to a tacky film, removing the need for an additional layer of rubber solution on the metal surface. This reduces process time as well as saves on labour and material costs.

Properties of Polyloc 170 & 271

	170	271
Composition	Organic polymers, resins and fillers dissolved a solvent system.	
Color	Grey	Black
Solid Content	25 +/- 2%	13 +/- 2%
Density	0.95 ~ 0.98	0.87 ~ 0.90
Diluents	MEK	Toluene
Viscosity	200 ~ 400 cps	200 ~ 400 cps
Shelf Life	6 months	6 months
Flash Point	5.5°C.	6°C
Coverage	10 ~11 sq. mt./lt.	10 ~ 11 sq. mt./lt.

Preparation of Metal Surface

This is the most important step for any rubber to metal bonding application. The metal surface should be properly cleaned of all contaminants such as oil, grease, rust, scales, dirt, etc.

Grit/sand blasting or wire cloth abrading is common mechanical methods of metal preparation, and gives excellent results. The creation of a ragged surface also increases the surface area being bonded. Residual dust particles must be removed from the metal by wiping the surface with solvent.

Application of the Adhesive

Polyloc 170 & 271 have to be stirred thoroughly before and during use. The adhesive may be applied by spraying (only Polyloc 170) or brushing with roller or brush. The application of a thin and uniform coating of the bonding agent, free from excessive runs, tears or fatty edges is an essential condition for optimum bonding results.

The adhesive may be diluted up to 20% with the appropriate solvent. It takes 30 ~ 40 minutes for the adhesive films to dry at ambient temperature. Care has to be taken to ensure that the primer film has dried fully before applying the cover coat. The cover coat dries to a tacky finish, which helps in better lay up of the compounded rubber sheet. It is generally not necessary to apply any rubber solution over the metal surface once Polyloc 271 has been applied.

Wipe the compounded rubber sheet with solvent in order to activate and clean the surface to be bonded. Apply a coat of rubber solution (containing 15 ~ 20% of the rubber compound, balance Toluene) over the cleaned rubber sheet. Allow the solution to dry to a tacky surface, before laying up on the metal.

Vulcanisation / Bonding

Ensure proper rubber lay up to provide intimate contact between rubber and the metal. Any air entrapment between the surfaces will lead to bond failure. Good bonds can be obtained by various curing methods like autoclave (120 ~ 170°C) in hot air or steam, exhaust steam (75 ~ 100°C), hot water, or chemical curing at ambient temperatures.

Cautionary Information

For industrial use only. Contains volatile aromatic solvents; keep away from heat, sunlight and flame. Breathing of vapors and mists should be avoided. May be harmful or fatal if swallowed.

For additional information or guidance in improving existing bonding systems, please contact:

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