



«MULCO #89» INSULATION PANEL ADHESIVE

DESCRIPTION

Rubber and light petroleum distillate based all-purpose adhesive.

INTENDED USES

«MULCO #89» with its trowel consistency is especially formulated for the installation of insulating panels. «MULCO #89» can be used indoors or outdoors to bond insulating panels such as polystyrene (blue, green, white, pink, etc.), polyurethane, cork, glass foam or fiberglass insulation panels, on gypsum, masonry or concrete walls.

REMARKS: → Does not withstand continuous or temporary immersion (tanks);
→ Not to be used to bond polystyrene on itself or on a non-porous surface.

ADVANTAGES

- ⇒ Advantageous open time.
- ⇒ Multipurpose uses.
- ⇒ Professional quality.
- ⇒ Ease of application.
- ⇒ Remarkable adhesion.
- ⇒ Flexible.
- ⇒ Can be use as an air barrier and vapor barrier.

STORAGE AND APPLICATION TEMPERATURE

«MULCO #89» does not deteriorate below freezing point. However, since its viscosity and its drying time increase when the temperature drops down, it is recommended to store it in a dry place where the temperature is between 10°C (50°F) and 30°C (86°F) to make its use always possible. Thus, the sealed cartridges could be preserved for 2 years.

«MULCO #89» can be applied either in winter or in summer. However, to make its use easier, the product must be at a temperature between -10°C (15°F) and 30°C (85°F). If the application of «MULCO #89» is to be made at a temperature lower than 5°C (40°F), the surface must be at a temperature at least 3°C (5°F) higher than dew point.

SURFACE PREPARATION

The surface must be in a seemingly new, firm, linear, clean, porous and dry state. The surfaces must be free of frost or ice. Wash off any filth, grease, oil, salt or any other contaminating product agent with an appropriate cleaner/degreaser. It must also be free of wax, silicone, asphalt or tar products (coating, adhesive, etc.), and all loose or foreign material or any material soluble in solvents. The surface must not be crumbly, soft or fragile. It must also be free of any humidity or hydrostatic pressure.

CONCRETE: Do not use on concrete less than 28 days old.

The surface must be free of any coating, paint or curing agent since it may hinder adhesion. It must also be entirely free of efflorescence salts.

Floors: verify the presence of humidity or hydrostatic pressure.

After cleaning, allow the surface to dry at least 72 hours. Concrete temperature must be at least 5°C (40°F).

Low temperature slows water migration and gives unreliable results.

Using duct tape, fix a plastic sheet at least 60 cm (2 feet) x 60 cm (2 feet) on 4 or 5 floor areas.

Plastic sheets must stay in place for at least 24 hours if the concrete temperature is above 20°C (70°F) or at least 3 days if the concrete temperature is between 5°C (40°F) and 20°C (70°F). At a temperature below 5°C (40°F), the humidity test cannot give reliable results.

Verify the presence of humidity (concrete getting darker or presence of droplets under the plastic sheets).

If these conditions appear (concrete getting darker or presence of droplets), «MULCO #89» should not be used on that floor, a false floor must be built including a vapor barrier.

Verify the presence of efflorescence salts.

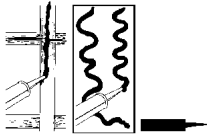
If necessary, treat with a 5 to 10% muriatic (hydrochloric) acid solution or another specific acid solution. Let work for 20 minutes or according to product's instructions. Swill out several times and let dry out (at least 72 hours).

Walls: if you need to use the adhesive «MULCO #89» as a vapor barrier, it has to be applied on the outside of the concrete wall.

REQUIRED PRIMER

«MULCO #89» does not require priming on bare plywood or on bare concrete (28 days old).

APPLICATION



By bead (cartridge): cut the nozzle of the cartridge at a 90° angle to a dimension that extrudes beads of at least 7 mm (1/4 in.) in diameter.



Pierce the aluminum membrane found inside the nozzle.

Use a caulking gun and apply with a uniform pressure.

Apply a bead on the perimeter and at every 20 cm (8 in.) covering entire surface.

All beads of adhesive must be thick enough to be smoothed out when the material is put in place.



Adhesive and vapor barrier uses: apply a continuous film at least 3.5 mm (1/8 in.) thick of «MULCO #89» on the entire surface using a plain edge trowel. The insulating panels must be applied to substrate within 10 minutes. For more safety, make sure that the adhesive is tacky (by touching) when setting insulation material to substrate. Apply insulation material by pressing firmly against the surface to be covered and slide it slightly. Check occasionally to make sure that «substrate-adhesive-insulation material» contacts are complete.

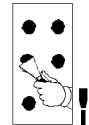


By trowel: Apply the adhesive on the entire surface to be glued, using a trowel that will ensure a strong bond between the two surfaces.

In general, the use of a 5 mm (3/16 in.) V notched trowel is sufficient for smooth materials.

For very uneven surfaces, a trowel with larger notches may be required.

All beads of adhesive must be thick enough to be smoothed out when the material is in place. Always use a trowel so that 80% of the back of the material is covered with adhesive once it is in place.



By spots: Apply spots of 3 cm (1 ¼ in.) in diameter by at least 6 mm (1/4 in.) thick at every 30 cm (12 in.) by 30 cm (12 in.) of entire surface.

All adhesive spots must be thick enough to be smoothed out once the material is in place.

Ceiling: Use the adhesive following one of the methods mentioned earlier, with the help of metal fasteners.

In all cases:

Do not cover an area with more adhesive than allowed by the open time, for a skin will form on the adhesive.

Be sure the adhesive is tacky upon putting the material in place.

The amount of adhesive applied must be sufficiently thick to be smoothed out when the material is put in place.

The material must be put in place immediately and its application must not take longer than 15 minutes from the start.

Adhesion could be mediocre if the material is put in place once a skin has been formed. Touch the adhesive to see if a skin was formed. If so, you have waited too long to apply the materials. Re-trowel the adhesive and apply a new coat, while working more quickly.

Wait at least 48 hours before applying any force on the materials (traction, traffic, movement, etc.).

COVERAGE

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|------------------------------|---|---|
| Per 300 ml cartridge: | By bead: | 9 linear meters (27 linear feet) of bead 9 mm (3/8 in.); 1.2 sq. m (13.1 sq. ft.); |
| | By spots (spots 1 cm thick): | 2.0 sq. m (20 sq. ft.); |
| | By spots (spots 6 mm thick): | 3.0 sq. m (32 sq. ft.); |
| Per litre: | Trowel (5 mm (3/16 in.) square notched): | 0.9 sq. m (9 sq. ft.) |
| | By spots (spots 6 mm thick): | 11 sq. m (114 sq. ft.); |
| | by spots (spots 1 cm thick): | 6.3 sq. m (68 sq. ft.); |
| | for uniform coat 3.2 mm (1/8 in.) thick: | 0.3 sq. m (3 sq. ft.); |

TECHNICAL GUIDE

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|---|---|
| GENERAL APPEARANCE: | Homogenous, buff color paste, free of lumps, easy to use. |
| COMPOSITION: | Synthetic rubber and resins (binder), inert charge (pigment), solvents (volatile material) and other additives. |
| APPLICATION METHOD: | Caulking gun, putty knife or trowel |
| APPLICATION SITE: | Indoors / outdoors |
| SURFACE DRYING TIME: | 5 to 15 min. |
| CLEANER (wet product): | Use mineral spirits. |
| CLEANER (dry product): | Use a putty knife and mineral spirits or another effective solvent; take care not to affect the other surfaces with too strong a solvent. |
| CLEANER (skin contact): | Whenever possible, wash with mineral oil, then wash carefully with soapy water and rinse. |
| FLAMMABILITY: | At application: very flammable; Dry: combustible. |
| STANDARDS: | Associated with the standards 71-GP-24M, type 1 and 2, class B |
| WATER VAPOR PERMEANCE (ASTM E-96): | 0.03 perms for a 3,2 mm (1/8 in.) film at application. |
| SERVICE TEMPERATURE: | Minimum: -30°C (-22°F); Maximum: 50°C (122°F). |

RESTRICTIONS

The shelf life is decreased by warehousing over 25°C (77°F).

On certain conditions, mechanical fasteners may be required.

Do not use on plastic materials, metal or wet surfaces.

In general, «MULCO # 88» is used for adhesion on metal.

Adhesion on materials subject to immersion cannot be guaranteed.

Do not use on painted or varnished surfaces without thoroughly sand the surface.

At least one of the surfaces must be porous in order for the adhesive to dry.

The initial drying time of «MULCO #89» is 24 hours; its full drying time can exceed 10 days at 25°C (77°F), 50% relative humidity without air circulation. Higher temperatures or air circulation will shorten those times. At lower temperature, high relative humidity or with some materials the drying time will be longer.

Adhesion of material not specifically mentioned cannot be guaranteed. It is up to the customer to make his own performance test or to consult our technical department.

SAFETY PRECAUTIONS

KEEP OUT OF THE REACH OF CHILDREN.

Before using «MULCO #89», consult the product material safety data sheet (MSDS)

Avoid using it in a place where the solvents evaporating from «MULCO #89» could affect food or any other product sensitive to odors or inside residences where sensitive people are present.

«MULCO #89» contains flammable solvents. Do not smoke when using the product. Work in good ventilation conditions.

Suppress all flash sources, flames or intense heat at the working place and near it.

If the product is used indoors, well ventilate to the outdoors. Do not recycle the air.

Disposal: consult your municipality to dispose in conformity with regulations.