BI-COMPONENT POLYURETHANE by CIMENTART – TECHNICAL DATA SHEET MICROCEMENT

DESCRIPTION

Bi-COMPONENT POLYURETHANE is a waterproofing coating, made of aliphatic polyurethanes, of high resistance to washing and weathering (Comp A) and an aliphatic isocyanate without solvents (Comp B), recommended to be used over the Microcement coatings, concrete, printed concrete, polished cement and wood. It can be applied in interior and exterior applications.

PRODUCT ADVANTAGES

- Transparent odorless coating of high resistance that can be used in interior and exterior, walls, floors or ceilings
- Protection of microcement coating, cement and wood
- Three different sheens: satin, matt, and glossy
- High resistance to abrasion
- Complete waterproofing of the surface
- It allows cleaning of the surface where applied, with any type of chemical cleaner
- Resistant to hydrochloric acid
- Great cohesion over any cement, wood or painted surface
- Anti-slip and anti-bacteria
- Prevents the bacteria growth and formation of fungus
- Easy, bubble-free application
- Completely resistant to the action of UV rays and does not yellow from exposure

APPLICATION PROCESS

- In absorbing surfaces, apply previously a layer of CIMENTART Sealer
- Mix the two components in small batches that will be worked with – as the mixture will harden after even just an hour until you get a perfect homogeneous mixture. Is done using the following proportions: 5 parts of Polyurethane (component A) to 1 part of Hardener (component B). It is important to mix the two components completely to avoid the appearance of areas of different grades of gloss due to a varying dispersion of the two components
- PRO TIP: To achieve an extra hardness and resistance to scratching, especially on floors with heavy foot traffic or greater wear, you can make the mixture in the following proportions: 4 parts of Polyurethane (component A) for 1 part of Hardener (component B)
- After the correct mixing is done you can filter the mixing using a metallic strainer
- Once the mixing is filtered if you notice the formation of small bubbles, you should wait 5 minutes before you start the application
- Apply with a varnish roller or any high-grade roller (not foam) that is ¼" thick or thinner, a brush or an airless system over a dust free surface. We recommend brushing the surface after applying the product to remove possible air bubbles, especially on very hot, dry and highly ventilated sites
- Apply one layer, in an orderly way without stretching the product too much, ensuring that no area is left uncovered, and without excesses, creating a layer of the thickness of a paper sheet. Cover very well all the areas with water contact and the joints where the water can penetrate
- Use the roller to fix layers that are too thick as they can cause:
  - The drips on walls
  - Drying time too long
  - Decreased hardness due to excess of product.
  - Remember that the recommended coverage (once soaked in the roller), is 2 to 3 ounces for every 10 square feet.
- Let the first layer dry completely, approximately 8 to 12 hours depending of the site ventilation and temperature, before applying the next layer.
- Caulk at any change of material (window, tub, drain etc.) with silicon caulk after final polyurethane coat.

LIMITATIONS

- Do not apply in layers greater than 0.1 mm
- Respect the recommended drying times
- Good ventilation is necessary in the rooms where it is applied
- Do not apply with risk of frost or rainy weather. Do not apply at temperatures below 41°F(5°C) or above 95°F(35°C)
- Never leave any of the layers partially done, once the application is started, continue until its completion without stopping so you do not see cuts or seams
- Do not dilute the product with water or solvents
- NOT for applications with fully submersed water areas or areas with standing water

- Commercial applications should follow the IBC (International Building Codes) when product is specified
- Furniture legs placed on product should always have felt pad coverings, no exceptions
- Furniture legs with rigid, plastic leg protectors should always be REMOVED
- Completely avoid dragging furniture, appliances or other objects or tools on a microcement floor
- Never apply product on substrates that are wet, damp or have capillary moisture
- Never apply product on concrete with hydrostatic pressure without a water-based, penetrative sealing of the slab with product of choice
- Use the appropriate Personal Protective Equipment (PPE) to protect the eyes, face, and skin. In case of contact with the eyes, rinse thoroughly with water and consult your doctor
- Do not put within reach of children

Dry Times

After final steps of sealer and 2 coats of polyurethane, let it dry completely for at least 4 days before surface usage

For areas exposed to moisture and direct water allow 7 days before surface will be used

The surface will continue to harden as it cures and will be fully cured in 28 days

Drying time depends on the temperature, ventilation and humidity:

TEMPERATURE	*HUMIDITY*	*DRYING TIME (APROX)*
95ºF(35ºC)	***40%***	***10 to 12 hours***
95ºF(35ºC)	***10%***	***8 to 12 hours***
68ºF(20ºC)	***40%***	***8 to 10 hours***
68ºF(20ºC)	***10%***	***6 to 8 hours***
41ºF(5ºC)	***40%***	***20 to 25 hours***
41ºF(5ºC)	***10%***	***15 to 20 hours***

CLEANUP

Any tools using the Cimentart system can be cleaned with water and dish soap prior to the product on them hardening.

PACKAGING AND COVERAGE

Bi-component polyurethane is available in sizes:

- 2.2 lb or 1 liter combined(A+B) covers aprox. 100FT2
- 11lb or 5KG combined(A+B) covers approx. 500 FT2
- 44lb or 20KG combined(A+B) covers approx. 1,000 FT2

**Coverage is based on 2-coat applications, for example if you have 100 FT2 project you will need one 2.2lb container. Efficiency decreases on rough or porous surfaces*

We recommend 2 layers on surfaces with no contact with water and 3 layers on surfaces with contact with water or humidity (exterior surfaces, showers, kitchen worktops, etc.)

TRANSPORATION

Product merchandise is not considered dangerous or hazardous for transport. Aqueous base is free of solvents, alcohols or flammable products

Never allow product to freeze

Never transport product in enclosed trailers with high heat

STORAGE AND SHELF LIFE

Store containers in a dry place protected from bad weather (extreme heat or cold)

Keep material in original containers, ensure container seals well if it has been opened

Shelf life is 12 months

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Technical Data Matrix of the A + B components and mixture

Components

	A COMPONENT	*B COMPONENTE*
Type	*High resistance polyurethane resins*	*Aliphatic isocyanate without solvent*
Color	White. When dry is transparent	*Transparent*
Appearance	*Liquid*	*Liquid*
Viscosity	*870 mPa.s at* 68 ºF (20ºC)	*450 mPa.s a* 68 ºF (20ºC)
Specific weight at 68 ºF (20ºC)	30%	100%
Point of combustion	*>392°F (200°C) Water base BII*	*>212°F(100°C)*
Packaging	*1.85lb (.84 kg)* *9.2lb (4.2 kg)* *37lb (16.8 kg)*	*.37lb (.16 kg)* *1.85lb (.8 kg)* *7lb (3.2 kg)*

A+B Mixture

Mix proportion	*5 parts Comp A / 1 part Comp B*
Color	White. When dry is transparent
Appearance	*White liquid*
Mix duration at 68 ºF (20ºC)	*1 hour*
Viscosity	*830 mPa.s at* 68 ºF (20ºC)
Density at 68 ºF (20ºC)	*1,05 Kg/Lts ± 2%.*
Application temperature	*+ 41ºF (5 °C) / + 95ºF (35°C)*
Degree of gloss	Gloss: 8 - 12 hours Satin: 6 -10 hours Matt: 4 – 8 hours
Minimum time for repainting	*Between 12 to 24 hours at* 68 ºF (20ºC)
Finish after hardening	*Gloss, Satin or Matt*
Hardness	*55D*
Mechanical properties	*Maximum elongation: 35%*
Slippery	*UNE EN 13036-4 PTV 100*
Friction	*UNE EN 14904:2007*
Fire resistance	Not flammable - Euro class BFL S1
Abrasion resistance	*Taber CS-17/1000g < 50 mg*
Impact resistance	*IR 14,7*
Shipping	Material not dangerous
Storing	Material not dangerous

RESISTANCE TO CHEMICAL PRODUCTS ONCE APPLIED

PRODUCT	RESISTANCE 24 h	RESISTANCE 10 DAYS
Water	10	10
Thinner	0	4
Alcohol	0	4
Ammonia	0	7
Hydrochloric acid	5	9
Peroxide	0	3
Pure bleach	5	8
Hairdressing dyes	0	1
Acetone	0	0
Gasoline	2	7
Hot cooking oil	4	10
Coffee	8	10
Wine	9	10
Lemon	6	10
Coca cola	7	10
Beer	10	10
*10 maximum score. 0 minimum score		