# FCEM202(B)
## MAPELEC® BN-1

solvent

## Description

**Two-component nickel-based conductive polyurethane coating** providing shielding against electromagnetic interference (EMI) and ensuring electromagnetic compatibility (EMC) of electrical and electronic equipment. BN-1 offers good temperature resistance (thermosetting behavior) as well as enhanced chemical resistance. Nickel fillers exhibit good resistance to corrosive environments. The coating enables a surface resistivity below 500 mΩ/□. BN-1 is supplied as a two-component kit consisting of a base and a hardener. The thinner is not included in the kit.

## Technical characteristics

| | | |
|---|---|---|
| Chemical nature of fillers : | Nickel | |
| Density at 25 °C (ISO 2811) : | 1,82 | ± 0,05 |
| Dry content (ISO 3251) : | 70 | ± 3 % |
| V.O.C. : | 676 | $g.L^{-1}$ |
| Standard thickness : | 70 | µm |
| Resistivity (ASTM F390-98) : | <0,500 | Ω/[] |
| Theoretical coverage : | 5 | $m^2.kg^{-1}$ |

## Product preparation

**The base must be thoroughly homogenized** under mechanical agitation for 5 minutes prior to use to ensure proper dispersion of the sediment. The mixture base/hardener/thinner must then be homogenized and allowed to mature for 20 minutes before spraying.

| | REFERENCE | WEIGHT RATIO |
|---|---|---|
| BASE | FCEM202B - MAPELEC BN-1 BASE | **88** |
| HARDENER | FCEM202D – MAPELEC BN-1 DURCISSEUR | **12** |
| THINNER | FDIL7070 – DILUANT MAPELEC-B | **10 to 15** |

## Application

**Direct adhesion on ABS:** degreasing only.
**Composites, castings:** apply a sandable epoxy filler primer, ref. FT10677.
**Polypropylene:** apply primer ref. FCEM1101.
**Sensitive plastics:** apply primer ref. FCEM1103.

Application is carried out in cross coats using a high-flow paint with a pneumatic spray gun, a nozzle diameter of 0.8 mm, an air pressure of 2.0 bar, and a wide spray pattern.

## Drying

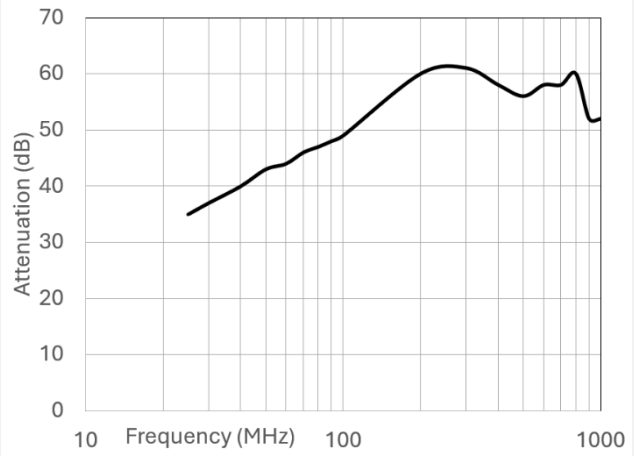
Drying must be carried out in a dust-free environment with controlled temperature and humidity (35–70%). For a multi-layer system, it is recommended to apply the coating on a dry undercoat.

### T ~20-25 °C :

**Dust-free:** **1 h**
**Touch dry:** **2 h**
**Through dry:** **72 h**

*Note*: The final sheet resistivity is achieved after through drying.

## Attenuation EM (GAM T20)




## Storage

**Storage:** 5 °C to 35 °C, protected from humidity

**Shelf life:** 12 months in sealed packaging

## Safety

Safety Data Sheet available on request.

**Warranty:** We guarantee our supplies against hidden defects in materials and preparation for the product's shelf life. Our liability is limited to the obligation to replace defective products free of charge, and no compensation of any kind can be claimed from us for any reason. It is the responsibility of users to validate, on their substrates and under their application conditions, that the products and/or processes meet their requirements. The advice we provide constitutes only information about the products and/or processes based on our experience, and cannot be considered absolute, and therefore does not engage our liability in case of inefficiency. The use of our products beyond their expiration date does not engage our liability in case of inefficiency. Users must ensure the product's expiration date, which is indicated on the container label. Furthermore, our company cannot be held responsible for bodily injury or material damage resulting from defective or incorrect use of our products, or from their improper application. Any specific commitment, any deviation from the above clauses, and more generally from the warranty clause, must be documented and signed by the company management to be valid. This edition cancels and replaces all previous publications relating to the same products and/or processes. Users are responsible for verifying with our services that this document has not been superseded by a later edition.