

DEK STANDARD ENGINEERING INSTRUCTION

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PAINT: "G.R.P. Anti Static Finish"

DSF2911

AN ANTI STATIC SPEC FINISH FOR G.R.P.

PROCESS

- | | | |
|---|---------------------|---------|
| 1 | ANTI-STATIC CLEANER | J131 |
| 2 | PRIMER | 90AP210 |
| 3 | EMC SHIELD | J2904 |

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1 ANTISTATIC CLEANER J131

FEATURES

Before attempting to apply a finishing system to a G.R.P. or plastic substrate, the surface must be thoroughly clean and free from contaminants.

Antistatic Cleaner J131 effectively cleans the surface and removes release agents without attacking sensitive plastics. It can also reduce surface static, a magnet for dust which could mar the appearance of the finish.

AVAILABILITY

Full details of the container sizes and prices may be obtained from TRIMITE sales offices.

FLASH POINT

Flash point below 21°C. Tested to BS 3900 Part A8

STORAGE

The recommended temperature range for storage is between 10°C - 15°C. It is not considered advisable to store this material outside this temperature range or to exceed a storage period of twelve months prior to use.

PREPARATION

The smooth surface of the GRP material must be sanded (keyed) to give a surface roughness of 80 grit / square inch using Dry Production abrasive paper. This is to provide a key for the paint.

Note "It is the GRP Sub-Contractors Responsibility to prepare the product for painting. The GRP will have been previously thoroughly cleaned using Trimite 'T' degreaser J102, to remove all the wax particles from the mould release agent and the GRP "keyed" (using 80 grit) to at least 95% of the surface area and checked for any pin holes/porosity throughout the GRP's material's significant face and through any filler material that may have been applied. It is essential that the cleaning action of the solvent takes place **before** any "keying", otherwise wax particles from the release agent will move into the gritted surface during keying and subsequent action to degrease after gritting will not remove all the waxed particles from the gritted/keyed face".... extract from DSM342 GRP

APPLICATION

Using a brush or clean cloth. Antistatic Cleaner J131 should be applied liberally to the substrate. it is important to change the cloth regularly to avoid returning contaminants to the surfaces. Clean gloves should be worn when handling surfaces which have been treated.

SAFETY

This product is not formulated as a skin cleaning material nor should it be used for cleaning clothing or any protective equipment. Do not use on electrical equipment or cables.

Before use, refer to :1. TRIMITE Good Housekeeping Guide.

2. TRIMITE Individual Safety Info. Sheet.

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2 PRIMER

TWO PACK PRIMER 90/AP210 HARDENER J2511 Mixing Ratio 20:1

FEATURES

A general purpose, fast drying primer for GRP, Noryl and Polyurethane rigid foam. It is formulated with solvents that will not attack these plastics but this primer should not be used on polystyrene and similarly sensitive plastics. The primer effectively masks surface imperfections and when hard dry exhibits very good flatting characteristics

AVAILABILITY

Full details of the container sizes and prices may be obtained from TRIMITE sales offices.

The following colours are available as standard:

Light Grey 40/AP210 White 90/AP210

FLASH POINT

Flash point in the range of 21°C - 32°C. Tested to BS 3900 Part A8

STORAGE

Recommended temperature range for storage is between 10°C - 15°C. It is not considered advisable to store this material outside this temperature range or to exceed a storage period of six months prior to use.

Mixing Ratio : Plastilac AP210 Two Pack Polyurethane Primer must be mixed with Curing Agent J2511 in the ratio of 20 parts of Primer to 1 part of Curing Agent, by volume.

Note: When not in use, the can of Curing Agent must be kept sealed.

Pot Life

The mixed material will remain usable for a period of up to 8 hours under normal conditions.(20°C)

COVERAGE

Calculated on a dry film thickness of 25 microns.

Conventional Spraying : 8 - 9 Sq. metres per litre (85 - 95 Sq. feet per Litre)

The coverage figures shown are approximate and will vary with the type of equipment used and the shape of the component.

PREPARATION

The smooth surface of the GRP material must be sanded to give a surface roughness of 80 grit/square inch using Dry Production abrasive paper. This is to provide a key for the paint.

The substrate must be thoroughly clean and free from mould release agents and static charges. Owing to the sensitivity of many plastics to certain solvents, Antistatic Cleaner J131 should be used.

Note It may be necessary to use a suitable electronic or radioactive source static eliminator immediately prior to painting.

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PRIMING

Application

Plastilac AP210 Two Pack Polyurethane Primer may be applied by the following method :

Conventional Spraying

The blend of the mixed material (see Mixing Ratio) is normally ready for use. If necessary, Thinner PT1002 may be added up to 5% by volume.

Note Some mouldings may require two applications of primer to cover surface imperfections. In such cases, the first coat, when Hard Dry should be flatted with 320 or 440 grade of abrasive paper before applying the subsequent coat.

Air Drying

At an ambient temperature of 20°C. the drying time is approximately as follows :

Surface Dry 10 - 15 minutes

Hard Dry 4 - 6 hours

Full Properties 7 days

Note The recommended finish may be applied when the primer is Hard Dry

Force Drying

Increased temperatures may be used to reduce the drying time. This procedure must be carried out with care to avoid component deformation. The type of plastic, conditions of moulding and post-mould time will determine the maximum temperature that can be employed.

Equipment Cleaning

High Flash Gun Cleaning Solvent J113 is suitable for cleaning of all equipment after use.

Safety

Before use, refer to :

1. TRIMITE Good Housekeeping Guide.
2. TRIMITE Safety Sheet S2 - Section 1.
3. TRIMITE Safety Sheet S4 - Section 2.
4. TRIMITE P.A. G/30/76.
5. TRIMITE Individual Safety Info. Sheets.

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3 EMC SHIELDING

ELECTROMAGNETIC SHIELD J2904

THINNER PT1002 (up to 50% by volume)

FEATURES

Electromagnetic Shield Coating J2904 has been manufactured to meet the strictest control of electrical interference. It is formulated utilising specially prepared metallic nickel to provide electromagnetic compatibility (EMC) on plastic housings for a wide range of electronic equipment. This highly conductive coating when applied correctly provides an effective shielding against radiated electromagnetic interference (EMI) and protection against electrostatic discharge.(ESD)

This product provides a cost effective and efficient way of complying with The United States Federal Communications Commission (F.C.C) Docket 20780 and the German Regulations V.D.E 0871 - 0879. (The Association of German Electrotechnical Engineers.)

Electromagnetic Shield Coating J2904 air dries rapidly to a pleasing metallic grey finish. It is suitable for application, without priming, to most plastic substrates used in the manufacture of electronic housings. It is formulated to minimise settlement both in the can and in the supply lines of the spray equipment.

AVAILABILITY

Full details of the container sizes and prices may be obtained from TRIMITE sales offices.

FLASH POINT

Flash point in the range of 21°C - 32°C. Tested to BS 3900 Part A8

STORAGE

The recommended temperature range for storage is between 10°C - 15°C. It is not considered advisable to store this material outside this temperature range or to exceed a storage period of six months prior to use.

COVERAGE

Calculated on a dry film thickness of 50 microns.

Conventional Spraying : 4 - 5 Sq. metres per litre (45 - 55 Sq. feet per Litre)

The coverage figures shown are approximate and will vary with the type of equipment used and the shape of the component.

PREPARATION

The substrate must be thoroughly clean and free from mould release agents and static charges. Owing to the sensitivity of many plastics to certain solvents, Anti-static Cleaner J131 should be used.

PRIMING

Electromagnetic Shield Coating J2904 is suitable for direct application to thermoplastics.

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Priming is necessary on the thermoset range of plastics (ie Glass Reinforced Polyesters, Glass Reinforced Phenolics, SMC, DMC & Polyurethane Foam Moulding). AP210 Two Pack Polyurethane Primer or AP262 Two Pack Acrylic Primer should be used.

FINISHING

Application

Electromagnetic Shield Coating J2904 may be applied by the following method :

Conventional Spraying

Thinner PT1002 may be added up to 50% by volume to obtain a viscosity of 45 - 50 seconds at application temperature using a BS B4 viscosity cup.

Film Thickness

To achieve the full shielding properties, the coating J2904 should be applied in several passes to achieve a wet film thickness of 100 microns which will result in a dry film thickness of approximately 50 microns.

OVERCOATING

It is not usual to overcoat Electromagnetic Shield Coating J2904, but this is dependent upon the finishing coat requirement. TRIMITE Product Advisory Department should be consulted for a suitable recommendation.

Air Drying

At an ambient temperature of 20°C, the drying time is approximately as follows :

Surface dry : 10 - 15 minutes

Hard dry : 1/2 - 1 hour

Full properties : 24 hours

Note : Properly painted parts should attain a conductivity of less than 1 ohm/square inch in one hour. Maximum conductivity is normally achieved in 12 hours.

CLEANING

High Flash Gun Cleaning Solvent J113 is suitable for cleaning all equipment after use.

SAFETY

Before use, refer to

1. TRIMITE Good Housekeeping Guide.
2. TRIMITE Safety Sheet S4 - Section 2.
3. TRIMITE Individual Safety Info. Sheets.

PAINT FINISH.

Trimite Paint. See PROCESS 3 Page 1

Note: Paint type DSF 241 can be sprayed directly on the EMC shielding without the need for primers

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