NUTECH BUFF LIGHT GREY SPRAY GELCOAT

Technical Datasheet

PRODUCT CODE: C420013

NUTECH Sanding Gelcoats have been specifically formulated for FRP parts which will be subsequently painted. They can be used for room temperature and heated mould applications. [eg. RTM]. Customer experiences have proven that these products can be post baked at temperatures up to 140oC for as long as two hours. They may also be used for utility, non-critical exterior applications. They are not intended (nor should they be used) as a surface coating for the marine, tub/shower or swimming pool industries. They should not be used for water immersion service, (boat hull, swimming pool, spa, water tank, etc.) even if painted.

NUTECH Sanding Gelcoats are the industry bench mark when it comes to production efficiency and the ultimate surface quality of painted composites. They provide consistent handling properties, ease of application and reliable curing. They display:-

- Excellent resistance to porosity and pinholes.
- Good resistance to sag and uniformity of film thickness.
- Ease of sanding when cured.

APPLICATION

NUTECH Sanding Gelcoat spraying grades are suitable for both conventional and airless spray application. Special products are available for brushing.

The equipment and application procedures must be monitored on a routine basis. Inquire of and adhere to all equipment manufacturers' recommendations.

For best overall end use performance, a wet film thickness of 0.45 mm is suggested.

An appropriate mould release system should be evaluated particularly in relation to potential for transfer to the moulded part. Before painting parts should be washed, scuff sanded to remove all gloss, and washed again with a suitable solvent. Final inspection and adhesion evaluation should be done immediately prior to painting.

NUTECH Sanding Gelcoats are 'ready to use' and require only the addition of the proper amount of an appropriate Methyl Ethyl Ketone Peroxide to cure. It is recommended that the geltime and lay-up time be checked and monitored in the customer's plant.

These products (standard or fast cure) should not be used when temperature conditions are below 15°C, as curing may be adversely affected.

ROOM TEMPERATURE CURE

The recommended catalyst range is 1.2% to 3.0% with 1.8% at 25°C being ideal. Normally, the gel coat film is ready for lamination in 45-60 minutes. This time element is dependent on product, material temperature, room temperature, humidity, air movement, and catalyst concentration.

HEATED MOULD CURE

The catalyst level should neither exceed 2% nor fall below 1.0% for proper cure. Recommended range is 1.0% to 2.0%.

At the common RTM moulding temperature of 60°C, the gel time is very fast (less than 3 minutes). Changes in catalyst levels will not greatly affect gel time at temperatures above 38°C but will affect the cure. For proper cure do NOT go below 1.0% MEKP.

Temperatures above 82°C may require a specialised catalyst /promotion system.

Lay-up, glass placement and/or resin injection time will vary depending on temperature. At temperatures in the 60°C range, the injection window is between 5 to 10 minutes.

Note: When heated moulds are used, gel coat must be processed as soon as possible to prevent pre-release and poor adhesion.

TYPICAL PROPERTIES @ 25°C

PROPERTY	TYPICAL VALUE
Viscosity – Brookfield RVT #4 @ 5 RPM(cps)	9000 – 11000cP
Cone and Plate Viscosity	250 – 350 cP
Flash Point	31°C
Non-Volatile Material	64%
Gel Time @ 25°C @ 1.5% Curox M200	12 – 15 minutes

These values are for a reference guide only. They are not manufacturing control criteria.

STORAGE AND HANDLING

Uncatalysed gelcoats have a usage life of three months from date of manufacture when stored at 25°C or below, in a closed, factory sealed, opaque container, and out of direct sunlight. The usage life is cut in half for every 10°C over 25°C.

STANDARD PACKAGING

Mild steel drums
Mild steel pails

Always refer to the MSDS before use