

NCS ULTRAGEL 64 P1075 PA SV

NDS036/348

HIGH PERFORMANCE , MARINE DURABLE WHITE, LLOYDS APPROVED SPRAY GELCOAT

DESCRIPTION

NCS ULTRAGEL 64 P1075 PA SV is a white, pre-accelerated, thixotropic, unsaturated polyester spray gelcoat based on Isophthalic Acid and Neopentyl Glycol. It is especially formulated to give excellent durability, colour retention and blister resistance. Ease of application and rapid air release has been combined with improved cure to provide a gelcoat with superior performance.

NCS ULTRAGEL 64 P1075 PA SV is recommended for applications which require long term weathering and blister resistance e.g. yachts, boats and swimming pools.

FEATURES	BENEFITS
Thixotropic	Minimal drainage with good flow
Preaccelerated	Requires only the addition of suitable catalyst
UV-stabilised	Improved weather resistance ensuring long term appearance
Specially promoted	Minimal geltime drift with improved cure characteristics
Pigmented White	High Opacity

TYPICAL LIQUID PROPERTIES

PROPERTY	SPECIFICATION	NCS TEST METHOD
Viscosity @ 25°C, mPa.s.	25 000 - 30 000	5.3
Geltime @ 25°C, 2 phg* BUTANOX M50, minutes	7 - 11	8
Liquid appearance	Opaque White	2
Stability in the dark @ 25°C, months	6 minimum	4.1
*phg = parts per hundred gelcoat, by mass		

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute any other warranty expressed or implied, including any warranty of merchantability or fitness, nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials, and in no event shall we be liable for special, incidental, or consequential damages. Our standard conditions of contract will apply to all sales

OTHER RELATED VERSIONS

NCS ULTRAGEL 64 P1075 PA SV E	Durable White spray export/summer version (12 –16 min)
NCS ULTRAGEL 64 NAT PA NCS ULTRAGEL 64 NAT PA E	Clear brush viscosity (8 – 12 min) Clear brush exports/summer version (12 – 16 min)
NCS ULTRAGEL 64 NAT PA SV NCS ULTRAGEL 64 NAT PA SV E	Clear spray viscosity version (6 – 10 min) Clear spray viscosity export/summer version (12 – 16 min)
NCS ULTRAGEL 64 P1075 PA NCS ULTRAGEL 64 P1075 PA E	Durable White Brush (8 – 12 min) Durable White Brush export/summer version (12 – 16 min)

CURING CHARACTERISTICS

The recommended catalyst for NCS ULTRAGEL 64 P1075 PA S is BUTANOX M50, (a 50 % solution of a medium reactivity MEKP).

BUTANOX M50 disperses easily in the gelcoat, but must nevertheless be mixed in thoroughly. Low reactivity (30 %) MEKP Catalysts must not be used. Under average conditions, it is advisable to use two parts BUTANOX M50 per one hundred parts of gelcoat by mass.

Curing should not be carried out at temperatures below 15°C.

NCS ULTRAGEL 64 P1075 PA SV must be allowed to attain workshop temperature (>20°) before being formulated for use.

NCS ULTRAGEL 64 P1075 PA SV requires only the addition of catalyst to start the curing reaction. The catalyst is therefore added and thoroughly stirred into the gelcoat resin shortly before use. The time taken for the gelcoat film to harden will depend on several other factors, including the thickness of the gelcoat and the material of which the mould is constructed.

It should be noted that ISO / NPG gelcoats are not as tolerant (forgiving) as standard ISO gelcoats concerning low temperature, low catalyst level and low film thickness. Precautions should be taken to ensure that the gelcoat temperature is above 20°C, the catalyst level above 1,5 phg and the film thickness above 400 microns. It is recommended that ISO / NPG gelcoats be allowed to cure for at least 2 hours before laminating commences.

The following formulation is recommended:

COMPONENT	PARTS BY WEIGHT
NCS ULTRAGEL 64 P1075 PA SV	100
BUTANOX M50	2

APPLICATION

NCS ULTRAGEL 64 P1075 PA SV is specially formulated for spray application.

All catalysts and pigments added to the gelcoat must be thoroughly mixed in. Pigment mixing should be carried out using a mechanical stirrer that should be of a type that does not introduce air, preferably air driven.

NCS ULTRAGEL 64 P1075 PA SV is particularly suitable for use with catalyst injection airless or air-assisted airless spray systems. It can be successfully used in conventional air-atomised equipment provided that spraying takes place within the limited pot-life.

A gelcoat wet film thickness of 700 to 800 microns is recommended for most applications. Inexpensive, disposable wet-film thickness gauges are available which will enable the operator to keep a check on gelcoat thickness. As a general guide, approximately 800-1000 g/m² of gelcoat will give the required thickness for normal use.

SPRAY APPLICATION GUIDE

1. Mix NCS ULTRAGEL 64 P1075 PA SV slowly before use, by hand or low shear mixer. Do not high shear as the viscosity may drop too much, causing the gelcoat to run down vertical surfaces. High shearing will also result in excessive air entrapment.
2. Check the temperature of the gelcoat. Ideally, NCS ULTRAGEL 64 P1075 PA SV should be >20°C and the mould temperature 1 or 2 degrees higher. Temperatures below 20°C will require higher pressures and may result in increased porosity.
3. Check the spray gun and lines for contamination such as solvent, water or oil. Clean and correct as necessary before spraying.
4. Check the air pressure before spraying and adjust to achieve proper flow, spray pattern and break-up of the gelcoat.
5. If catalyst injection is used, make sure the catalyst is flowing properly. Do not let raw catalyst fall on the mould or the sprayed gelcoat.
6. Adjust the catalyst level according to the temperature. Do not use less than 1.5 phg catalyst.
7. Keep the gun perpendicular - about 45 cm from the moulding during each stroke and spray a continuous film without arcing the gun.
8. To minimise porosity spray 3 to 4 coats of 200 microns each.
9. Do not apply less than 500 microns, or more than 1000 microns. Under 500 microns NCS ULTRAGEL 64 P1075 PA SV may not cure fully and over 1000 microns the gelcoat may crack or contain excessive air entrapment. The gelcoat may also pre-release if the thickness is excessive.

PIGMENTS AND FILLERS

NCS ULTRAGEL 64 P1075 PA SV is supplied pre-pigmented white with excellent opacity and does not require further additions of pigment.

The addition of fillers to NCS ULTRAGEL 63 P1075 PA SV is not recommended since their use may adversely affect the weather resistant and water resistant properties of the cured gelcoat.

It is recommended that, where mouldings are produced as sub-components of larger structures, or are simply large structures, that sufficient resin and pigment paste are mixed to enable the entire job to be completed, thus ensuring an exact colour match. Similarly, if coloured gelcoat is used, it is recommended that the same batch of material is used throughout the application as well as for sub-components. Thorough stirring of the mix shortly before use is recommended to ensure that the pigment is fully dispersed and that no separation has occurred. Care must be taken not to introduce air into the system.

**STORAGE
AND
HANDLING**

To ensure maximum stability and maintain optimum properties, gelcoat should be stored in closed containers, maintained below 25°C and away from heat sources and sunlight. All storage should conform to local fire and building codes. Drum stock should be kept to a reasonable minimum with first-in, first-out stock rotation.

Where bung-in-head containers are stored outside, it is recommended that these be stored in a horizontal position to avoid the ingress of water.

**STANDARD
PACKAGE**

Non-returnable metal drums.

**MATERIAL SAFETY
DATA SHEETS**

A Material Safety Data Sheet is available from your NCS Resins' representative. Make certain that you obtain a copy of this guide to the safe handling of unsaturated polyester resins and resin systems.

PLEASE READ AND UNDERSTAND THE MATERIAL SAFETY
DATA SHEET BEFORE WORKING WITH THIS PRODUCT

WARNING: CARE MUST BE TAKEN TO AVOID DIRECT
MIXING OF ANY ORGANIC PEROXIDE
(CATALYST) WITH METAL SOAPS, AMINE OR
ANY OTHER POLYMERISATION ACCELERATOR
OR PROMOTER, AS VIOLENT DECOMPOSITION
WILL RESULT!

NCS RESINS BRANCHES AT:

JOHANNESBURG / DURBAN / CAPE TOWN / PORT ELIZABETH