

## Technical Information

# NCS 237PA

NDS156/REV02

### CLEAR FINISHING POLYESTER RESIN

#### DESCRIPTION

NCS 237 PA is a clear finishing, unsaturated polyester resin specifically designed for surfacing of surfboards/sailboards, boats and other applications. This resin will cure in the presence of air to a hard, tack-free and moisture resistant surface.

NCS 237 PA is non air-inhibited, light stabilised and is a rigid, low reactivity, low viscosity pre-promoted resin for room temperature cure with Methyl Ethyl Ketone peroxide.

FEATURES	BENEFITS
Non air-inhibited	Cures to a hard, tack-free surface
Preaccelerated	Requires only the addition of suitable catalyst
Excellent colour	Transparent, clear coating
UV stabilised	Ensures long term appearance

#### TYPICAL LIQUID PROPERTIES

PROPERTY	SPECIFICATION	NCS TEST METHOD
Relative density 25°/25°C	1,10 - 1,12	14
Viscosity @ 25°C, mPa.s	250 - 450	5.2
Acid value, mg KOH/g	19 - 27	13
Volatile content, %	36 - 40	7B
Geltime @ 25°C, 1 phr* BUTANOX M50, minutes	15 - 27	8
Liquid appearance	Purplish Tint	2
Stability in the dark @ 25°C, months	6 minimum	4.1
*phr = parts per hundred resin, 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

## **CURING CHARACTERISTICS**

NCS 237 PA needs only the addition of catalyst to start the curing reaction. The resin should be allowed to attain workshop temperature (23°C) before being formulated for use.

The correct amount of catalyst is therefore added and thoroughly stirred into the resin shortly before use. The ambient temperature and the amount of catalyst control the geltime of the resin formulation. Curing should not be carried out at temperatures below 15°C. Ideally the catalyst level should range between 1 & 2 phr.

## **POST-CURING**

Satisfactory laminates for many applications can be made from NCS 237 PA by curing at ambient temperature (but not less than 15°C). When optimum properties and long-term performance are required however, the laminate should be post-cured.

After release from the mould, laminates should be allowed to mature for 24 hours at workshop temperature (23°C). They should then be post-cured for 3 hours at 80°C, although a longer period at a lower temperature will give almost the same result. The post-cure is most effective if it is carried out immediately after the 24 hour maturing period.

## **PIGMENTS AND FILLERS**

NCS 237 PA may be pigmented by the addition of up to 5% NCS POLYCHROME PIGMENT PASTE, but lower quantities consistent with achieving adequate hiding power are preferred if the physical properties of the laminate are to be maintained. The addition of fillers to NCS 237 PA is likely to change the hardening characteristics of the resin and will affect the properties of the laminate. Fillers should be accurately checked for moisture content and effect on geltime and cure rate before use.

## **STORAGE AND HANDLING**

To ensure maximum stability and maintain optimum properties, polyester resin 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.  
Bulk supplies can be delivered by road tanker.

## **MATERIAL SAFETY DATA SHEET**

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**