Technical Information

NCS
ULTRABOND BLUE 52 PA

NDS0910/500

FILLED POLYESTER ADHESIVE PASTE

DESCRIPTION

NCS ULTRABOND BLUE 52 PA is an unsaturated polyester, adhesive paste with a tenacious bond. It is non-sagging and can be used for filleting. The cured material has good adhesion to a variety of substrates including GRP, steel, aluminium, wood and brick. The bonding paste contains a blue catalyst colour change indicator. Once catalyst is added the blue colour of the indictor disappears to reveal the natural off-white colour of the bonding paste.

FEATURES	BENEFITS
Low exotherm	Minimal shrinkage and warpage
Minimal sag	Can be used on vertical and overhead surfaces
Versatile	Suitable for numerous applications
Adjustable pot life	Allows geltime to be tailored to requirements
Good colour	Readily pigmentable
Blue colour change indicator	Confirms catalyst is mixed into the product.

TYPICAL LIQUID PROPERTIES

PROPERTY	SPECIFICATION	NCS TEST METHOD
Relative density 25°/25°C	1,30 - 1,40	14
Viscosity @ 25°C, mm (Penetrometer)	120 - 160	95
Geltime @ 25°C, 2 phr* BUTANOX M50, minutes	7 - 13	8
Appearance	Stiff Opaque Paste	2
*phr = parts per hundred by mass		

CURING CHARACTERISTICS

NCS ULTRABOND BLUE 52 PA is pre-accelerated and therefore needs only the addition of BUTANOX M50 or BUTANOX LPT to start the curing reaction.

As a guide, the following geltimes were obtained in laboratory tests:

CATALYST AMOUNT	BUTANOX M50 Minutes	BUTANOX LPT Minutes
1 phr	23	TBA
1,5 phr	13	TBA
2 phr	9	TBA

Should longer geltimes be desired, BUTANOX LPT catalyst should be used in place of BUTANOX M50 - this could result in geltimes 50-100% longer with no impairment to the curing reaction.

APPLICATION

The following application procedure is recommended:

1. Once the required pot-life has been determined, catalyse a small quantity of NCS ULTRABOND BLUE 52 PA using MEKP-type catalyst, adjusting the level of catalyst to give the pot-life desired. The recommended level of catalyst is between 1 and 2 phr NCS ULTRABOND BLUE 52 PA by mass - do not use quantities less than 0,75 phr or more than 3,0 phr.

2. Surfaces to be bonded should be clean, dry and free of release agent, dust or oil, prior to application. If the surface is very smooth or oxidised it should be abraded prior to application.

3. Apply a fillet of material to one surface to be bonded. Press the two surfaces together and clamp for approximately 3 times the geltime. Once the material has gelled and prior to full cure, the excess material can be removed using a sharp knife.

POST-CURING

Satisfactory bonds for many applications can be made from NCS ULTRABOND BLUE 52 PA by curing at ambient temperature (but not less than 15°C).
It is well known that to achieve optimum properties and long-term performance, laminates must be post cured.
Similarly the properties and performance of NCS ULTRABOND BLUE 52 PA are enhanced by post cure.

TYPICAL PHYSICAL PROPERTIES

The following lap shear strengths were obtained in laboratory tests:

	Kg/cm²
GRP to GRP	50 - 60
Mild Steel to Mild Steel	45 - 55
Stainless Steel to Stainless Steel	120 - 130
Aluminium to Aluminium	25 - 30

STORAGE AND HANDLING

To ensure maximum stability and maintain optimum properties, bonding pastes 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 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