

# Technical Information

# Datasheet

Expiry Date: Dec 2019

# CDR 700

Refer to MSDS Resins Code A



## BISPHENOL-EPOXY VINYL ESTER RESIN THIXOTROPIC ACCELERATED LLOYDS APPROVED

### DESCRIPTION

CDR 700 is a premium Bisphenol-Epoxy Vinyl Ester resin that provides a high level of corrosion resistance in a wide range of both acidic and alkaline environments. For ease of use it has been promoted and thixotroped and is suitable for production of tanks, pipes and process equipment.

CDR 700 is designed for application by hand lay-up and filament winding where minimal drainage is desired. Ideal for use in Marine and is approved by Lloyds Register of shipping.

FEATURES	BENEFITS
Premium Epoxy Vinylester Polymer	High temperature stability Wide range of chemical resistance Tough laminates that resist cracking
HDT 100°C	Good heat resistance to a wide range of aggressive environments, including alkaline conditions
Low fizzing	Less air entrapment, easier to use

### TYPICAL LIQUID PROPERTIES

PROPERTY	SPECIFICATION	CDR TEST
Viscosity @ 25°C, mPa.s	2.0 -3.0	TM01
Brookfield @25°C, mPa.s	25 - 55	
Volatile content, %	38 -41	TM05
Geltime @ 25°C, 1.25 phr Curox M100 (mins)		TM03
CDR700 - 25	20 – 30	
CDR700 - 40	35 – 45	
Stability in the dark @ 25°C, months	4 minimum	4.1
*phr = parts per hundred resin, by mass		

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## TYPICAL PHYSICAL PROPERTIES

TYPICAL CLEAR CASTING PROPERTIES	
Temperature of deflection - under load (1,80 MPa), °C	100
Water Absorption (28 ) days %	0.55
Barcol hardness ASTM D2583-99	35
Elongation at break, % ISO527-1993	5.2
Tensile strength, MPa	83
Tensile modulus, GPa	3.4
Flexural Strength MPa	138
Flexural Modulus GPa	3.2
Volumetric shrinkage, %	7.6

## POST-CURING

Satisfactory laminates for many applications can be made from CDR 700 by curing at ambient temperature (but ideally 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.

## 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.  
Returnable IBC's 1000 Kg.

## MATERIAL SAFETY DATA SHEET

A Material Safety Data Sheet is available. Please refer to RESINS CODE "A" which will include CDR 700. 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**

**ATTENTION:** 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!