



# TECHNICAL DATA SHEET

**JOHN C. DOLPH COMPANY**

P.O. Box 267  
320 New Road  
Monmouth Junction, NJ  
08852

Ph:(732) 329-2333  
Fax:(732) 329-1143  
info@dolphs.com  
www.dolphs.com

## AQUA-THERM<sup>®</sup> BC-365-LTC

### LOW TEMPERATURE CURE, WATER SOLUBLE VARNISH

#### PRODUCT DESCRIPTION

BC-365-LTC is a water soluble, modified polyester varnish. This environmentally friendly varnish was especially developed for its excellent stability and low temperature cure.

#### FEATURES & BENIFITS

- Low temperature cure
- Excellent moisture resistance
- No co-solvent needed
- Excellent tank stability
- Excellent adhesion and flexibility
- No flash point – water based

#### TYPICAL APPLICATIONS

- Rotors
- Coils
- Transformers
- Random Wound Coils
- Motors
- Stators

#### TYPICAL PROPERTIES

##### Physical

	70% Solids	35% Solids	25% Solids	20% Solids
Color/Appearance	Clear Amber	Light Amber	Light Amber	Light Amber
Density @ 77°F (25°C), Lbs/gal	9.0 – 9.5	8.85 – 9.0	8.4 – 8.2	8.1 – 8.3
Viscosity, Brookfield @ 77 °F (25°C), cps	1,000 – 5,000	100 - 450	20 – 25	15 - 20
Viscosity, Zahn #2, seconds	N/A	110 - 130	18 - 23	16 - 22
Film Build, mils per side @ 275°F (135°C) for 20 minutes	1.5	.5 – 1.2	.3 - .5	.2 - .4
Thinner	Water	Water	Water	Water
PH	8 - 10	8 - 10	8 - 10	8 - 10
VOC, EPA method 24, Lbs/gal max.	1.9	0.95	0.75	0.65

##### Mechanical

Bond Strength, Helical Coil Method (35% solids double dip, 2 hours-300°F)	@ 25°C	17
	@ 150°C	8

All statements, technical information and recommendations related to Sellers' products are based on information believed to be reliable, but the accuracy or completeness thereof is not guaranteed. Before using the product, the user should determine the suitability of the product for its intended use. The user assumes all risks and liabilities whatsoever in connection with such use. The statements contained herein are made in lieu of all warranties, expressed or implied. Seller shall not be liable for any injury, loss or damage, direct or consequential, arising out of the use or inability to use its products. The sole liability of John C. Dolph Co., Inc. for any claims arising out of the manufacture, use or sale of its products shall be for the buyer's purchase price.

## Electrical Properties

Dielectric Strength, ASTM D-115, volts/mil	3,400
--	-------

## THERMAL CLASS (UL1446)

Twisted Pair	MW16	220
	MW35	180
	MW76	180
	MW80	155

## APPLICATION AND CURE

<p><b>Following is a suggested dip and bake cycle.</b></p> <ol style="list-style-type: none"><li>1. Preheat parts to 250-325°F to remove moisture. <i>Note: If thermoset tapes are used, preset tapes according to tape manufacturer's recommendations.</i></li><li>2. Cool to 130°-140°F</li><li>3. Dip until bubbling stops (15-30 minutes).</li><li>4. Drain between 5-20 minutes</li><li>5. Bake in a preheated oven at recommended time and temperature</li></ol>	<p><b>Suggested Bake Cycles*</b></p> <p>1-2 hours @ 300°F 2-4 hours @ 275°F</p> <p>* Times are taken after unit reaches baking temperature</p>
--	--

## THINNING AND VARNISH MAINTENANCE

For best results, BC-365LTC should be thinned before use with normal tap water. A recommend starting point is 35% solids. Thinning with one part water to one part of varnish will produce approximately 35% solids. After thinning, the pH should be checked with a pH meter. If necessary, the pH should be adjusted to 9 with DOLPH'S VM-3008 pH Adjuster in small amounts (about 1/10% at a time).

## STORAGE AND SHELF LIFE

Shelf life is one year from date of shipment from our plant, when stored in closed containers at 70°F or below.

1. Store in cool, dry place at 70°F/21°C or below.
2. Protect from direct sunlight.

## SAFETY AND ENVIRONMENT

Avoid contact with skin and eyes. See Material Safety Data Sheet

AUTHORIZED DISTRIBUTOR