

# DITECH

## DITECH PLASTCO INC.

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## TECHNICAL BULLETIN

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**DITECH  
IL-42-120-N**

### TYPE OF POLYESTER

**DITECH IL-42-120-N** is a liquid, thixotropic, isophthalic unsaturated polyester resin promoted for polymerization at room temperature.

During storage some separation of the thixotropic agent may occur. It is therefore recommended that the resin be thoroughly mixed prior to its use. This will ensure the application of a homogeneous resin.

### PRINCIPAL CHARACTERISTICS

- 1) Excellent wetting of fiberglass rovings resulting in faster rollout and reduced laminate porosity.
- 2) Extended cure with low exotherm allows for the lay-up of thick laminates.
- 3) Formulated for low styrene emission.
- 4) Air-inhibited.
- 5) Good heat and corrosion resistance.

### TYPICAL PROPERTIES OF LIQUID DITECH IL-42-120-N

Viscosity, Brookfield RVF at 25° C, Spindle #2 @ 20 rpm ..... 550-650 cps  
Relative Density ..... 1.10 - 1.12  
Color ..... amber-pink

### TYPICAL PHYSICAL PROPERTIES OF POLYMERIZED IL-42-120-N1/8" CLEAR CAST

Tensile Strength, psi ..... 10,000  
Flexural Strength, psi ..... 18,400  
Flexural Modulus, psi x 10<sup>6</sup> ..... 0.53  
Barcol Hardness ..... 45  
Heat Distortion Temperature ..... 100° C  
Water Absorption 24 hours @ 25° C ..... 0.20%

...2/

**PROPERTIES OF 1/4" HAND LAY-UP LAMINATES AT AMBIANT AND ELEVATED TEMPERATURES****Room temperature-cured**

<b>Cure Cycle 3 weeks @ 25° C</b>	<b>°C</b>	<b>°F</b>	<b>IL-42-120-N</b>
Flexural Strength, PSI	25	77	25,600
	66	150	19,400
	93	200	18,900
	107	225	19,800
	121	250	13,600
Flexural Modulus PSI X 10 <sup>6</sup>	25	77	1.13
	66	150	0.74
	93	200	0.70
	107	225	0.76
	121	250	0.60
Tensile Strength, PSI	25	77	16,700
	66	150	15,900
	93	200	15,300
	107	225	15,200
	121	250	14,000
Tensile Modulus PSI X 10 <sup>6</sup>	25	77	1.30
	66	150	1.04
	93	200	1.00
	107	225	0.91
	121	250	0.82
Barcoal Harness	25	77	51

**Heat-cured**

<b>Cure Cycle: 1 hr @ 100° C</b>	<b>°C</b>	<b>°F</b>	<b>IL-42-120N</b>
Flexural Strength, PSI	25	77	22,800
	66	150	26,700
	93	200	22,900
	107	225	19,600
	121	250	14,800
Flexural Modulus PSI X 10 <sup>6</sup>	25	77	1.32
	66	150	1.17
	93	200	1.01
	107	225	0.80
	121	250	0.65
Tensile Strength, PSI	25	77	13,700
	66	150	15,300
	93	200	17,500
	107	225	17,400
	121	250	14,500
Tensile Modulus PSI X 10 <sup>6</sup>	25	77	1.34
	66	150	1.31
	93	200	1.13
	107	225	1.05
	121	250	0.81
Barcoal Harness	25	77	58

Laminate Construction: SM/MM/WR/M/WR/M; glass content: 39%  
 SM: 10 mil C-glass surfacing mat  
 M: 2 oz/sq.ft. chopped strand E-glass mat

TYPICAL PROPERTIES; NOT TO BE CONSTRUED AS SPECIFICATIONS

...3/

**TYPICAL GEL TIMES OF DITECH IL-42-120-N**

Resin temperature ..... 25° C

Fiberglass weight ..... 900g/square meter (2 x 1.5 oz)

Glass content ..... 30%

Catalyst level (Cadox M-50)	1.0%
Gel time (pot-life)	25-30 min.
Laminate geltime (working time)	30-35 min.
First Barcol (1-10)	200-300 min.

**APPLICATIONS OF DITECH IL-42-120-N**

- 1)The fabrication of reservoirs for corrosive liquids.
- 2)The fabrication of parts which must have a high heat resistance.
- 3)The fabrication of parts which will be in contact with food products or potable water. Approvals of products made with this resin may be obtained from the appropriate Canadian Authority.
- 4)The lamination of boat hulls to eliminate osmotique blistering.
- 5)Mold making, tooling resin.

**NOTE:** Laminates made for heat resistance and for use in contact with food products or potable water must be post cured and washed prior to use.

**CORROSION RESISTANCE**

For special applications consult your technical representative.

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