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TECHNICAL DATA SHEET

LINDRIDE 32 SERIES

Members of the LINDRIDE 32 series of liquid anhydrides are composed of various isomeric forms of Methyltetrahydrophthalic Anhydride, specifically formulated to remain free of crystals at temperatures well below ambient. These materials exist as completely clear liquids at temperatures above 45°F.

The LINDRIDE 32 anhydrides are amber-coloured low-viscosity liquids which blend readily with epoxy resins at normal temperatures. In the absence of promoters, the resulting solutions are stable for extended periods of time at room temperature. In the presence of promoters and at elevated temperatures, however, they are converted to highly cross-linked polymers with excellent physical and electrical properties.

Being anhydrides, they react with water to yield free Methyltetrahydrophthalic Acid, a high melting solid of low solubility. For this reason it is important that moisture be excluded from the anhydride or its systems.

These LINDRIDES are recommended for use with bisphenol A type epoxy resins in applications such as filament winding, casting, potting, encapsulation, etc., where heat can be used to obtain cure.

A typical formulation contains 80-85 parts of unpromoted LINDRIDE per 100 parts of liquid epoxy resin with an equivalent weight of 190.

INDIVIDUAL PRODUCTS

LINDRIDE 32 forms the foundation of the series. It is recommended where epoxy resins are to be used in a variety of non-repetitive applications or where promoter levels need to be adjusted to attain specific cure rates.

LINDRIDE 34 is a derivative of **LINDRIDE 32**. It is formulated to minimise colour formation on mixing of amine-type promoters with epoxy systems. It is used in applications where clarity of products is of importance.

LINDRIDE 35 is pre-catalysed with an imidazole derivative. Its use avoids the error-prone inconvenience of weighing and blending small quantities of promoter. It is recommended for maximum heat distortion temperature.

LINDRIDE 36 is pre-promoted with quaternary amine. It is formulated to generate very low colour during cure and is hence particularly useful in applications where low colour is required.

LINDRIDE 39 is a pre-catalysed form of **LINDRIDE 32** which has been formulated specifically for maximum pot life. When mixed with liquid bisphenol A epoxy resins, pot lives on the order of several months may be obtained at ambient temperature, and much longer at lower temperatures. **LINDRIDE 39** is recommended for one part system formulations.

Letter designations after the **LINDRIDE 35** and **LINDRIDE 36** indicate levels of promoter concentration. These levels are consistent in reactivity with the promoter levels in the Lindride 5 and Lindride 6 series.

TYPICAL PROPERTIES

	<u>LINDRIDE 32</u>	<u>LINDRIDE 34</u>	<u>LINDRIDE 35</u>
Anhydride Equivalent Weight	160 - 170	165 - 175	165 - 175
Brookfield Viscosity (cps @ 25°C)	50 - 100	50 - 150	50 - 200
Specific Gravity	1.19 - 1.22	1.19 - 1.22	1.19 - 1.22
Flash Point (TCC)	> 225°F	> 225°F	> 225°F
Freezing Point	< 32°F	< 32°F	< 32°F
	<u>LINDRIDE 36</u>	<u>LINDRIDE 39</u>	
Anhydride Equivalent Weight	165 - 175	160 - 170	
Brookfield Viscosity (cps @ 25°C)	50 - 200	50 - 150	
Specific Gravity	1.19 - 1.22	1.19 - 1.22	
Flash Point (TCC)	> 225°F	> 225°F	
Freezing Point	< 32°F	< 32°F	

LINDRIDE 36 SERIES

PRODUCT SPECIFICATION

<u>Analysis</u>	<u>Lindride 36</u>	<u>Lindride 36K</u>	<u>Lindride 36V</u>	<u>Lindride 36Y</u>
Gel time (minutes)	14.0 - 16.0 (min @ 123°C)	16.0 - 18.0 (min @ 100°C)	9.0 - 12.0 (min @ 100°C)	16.5 - 18.5 (min @ 85°C)
Brookfield Viscosity (cps @ 25°C)	50 - 150	75 - 200	75 - 200	75 - 200
Anhydride Molecular Weight	160 - 170	165 - 175	165 - 175	75 - 185
Gardner Colour (max)	8	8	8	8
Specific Gravity @ 25°C	1.19 - 1.22	1.19 - 1.22	1.19 - 1.22	1.19 - 1.22
Flash Point (TCC)	> 225°F	> 225°F	> 225°F	> 225°F

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