

Technical Information

RICAPHOB
DRY

***“Dendrimer to provide water resistance to
paper and paper-board”***

COMPOSITION

RICAPHOB DRY consists of a hydrocarbon matrix and hyperbranched star shaped polymers (denrimers).

FIELD OF APPLICATION

RICAPHOB DRY is a repellent for the hydrophobic finishing of paper and paperboard products.

PROPERTIES

- Appearance : White to Cream emulsion
- Specific Gravity : approx. 1.06 g/cm³ @ 25°C.
- pH – 10% solution : 5.0 – 5.5
- Viscosity@25°C : 7.5 cPs Brookfield RVF Spindle 1 20 rpm
- Solubility : Readily dilutable with cold water.
- Ionicity : Cationic
- Dry Solids : 21 - 23%

FEATURES

- Liquor preparation with soft water is recommended.
- Compatible with N-methylol compounds.
- Conforms to FDA regulation.
- Can be applied by coating or surface sizing.
- Compatible with most nonionic and cationic additives.
- Confers resistance to aqueous and oily soiling.
- Does not affect hand, colour, lubricity, air permeability and strength of paper.

APPLICATION

APPLICATION BY SIZE PRESS METHOD:

RICAPHOB DRY can be applied to non sized paper made of bleached Kraft pulp which does not contain rosin and Aluminium Sulphate.

Method 1: Origin paper: Non sized bleached kraft paper basic weight 40g/m²

Application: Horizontal type size press.
Pick-up 24g/m².
Drying temp 100°C for 5 secs on a drum dryer.

SODIUM HEXAMETAPHOSPHATE	OXIDIZED STARCH	RICAPHOB DRY	OIL RESISTANCE KIT RATING	STOCKIGT SIZING (SECS)
0.1%	3%	0.2%	5	6.5 secs
0.15%	3%	0.3%	6	7.3 secs
0.22%	3%	0.45%	8	7.5 secs
0.34%	3%	0.68%	9	8.0 secs

Method 2 : Non sized acid paper with Alum – basic weight 40g/ m².

Pick-up - 24g/ m².

Drying temp 100°C for 5 secs on a drum dryer.

SODIUM DIETHYLENE-TRIAMINE PENTACETATE	CORN STARCH	RICAPHOB DRY	OIL RESISTANCE KIT RATING	STOCKIGT SIZING (SECS)
0.1%	1.5%	0.2%	4	6.7 secs
0.15%	1.5%	0.3%	6	8.0 secs
0.22%	1.5%	0.45%	8	9.3 secs
0.34%	1.5%	0.68%	9	9.5 secs

Method 3 : Rosin sized paper (Using Ricabond EP274 sizing auxiliary) – basic weight 50g/m².

Pick-up - 24g/ m².

Drying temp 100°C for 5 secs on a drum dryer.

RICABOND EP274	POVAL 117 (PVA)	RICAPHOB DRY	OIL RESISTANCE KIT RATING	STOCKIGT SIZING (SECS)
1.0%	1.0%	0.45%	6	13.0 secs
1.0%	1.0%	0.9%	8	14.0 secs
1.0%	1.0%	1.45%	10	16.0 secs

Method 4 : Calender coating on paperboard – neutral sized paper basic weight 260g/m².

Coating formula:

PVA	20.0 Kg
Ricabond EP274	2.5 Kg
Ricaphob DRY	8.5 Kg
Antifoam	1.0 Kg
Water	966.5 Kg

The shear resistance of liquors with this compound is generally limited, however, the special emulsification technology used in manufacturing **RICAPHOB DRY** means that this problem is vastly reduced. Prolonged stirring times with high-speed impellers produce a white foam due to the emulsifiers. This should not cause a problem.

STORAGE CONDITIONS

Do not store **RICAPHOB DRY** below 5°C or above 40°C. Ensure that all drums are sealed when the product is not in use. Store in a cool area.

SAFE HANDLING PRACTICES

When working with chemicals, protective clothing should be worn at all times. This equipment should include impervious gloves, goggles and protective clothing. For detailed health and safety information, refer to the relevant MSDS Bulletin.

ATTENTION

The data contained in this technical bulletin is based on extensive laboratory studies and field applications through bulk trials. Since there are many factors that may influence processing and application, the information herein does not exempt the user from performing their own tests and experiments to determine the suitability of the product for their own application.

The information contained does not provide any liability or legally binding guarantee regarding the suitability and properties of the product for a specific end use. It is the obligation of the user to ensure those proprietary rights; laws and legislation are observed.

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