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SNF FLOERGER®

The information in this brochure is provided in good faith. To our knowledge it reflects the truth.

Photos: International Wallcoverings Ltd. Ontario - Canada

GUTENBERG ON LINE REGIONS _Tel. 04 77 42 35 00 / 03 - 2002 N° 1314-01

FLOFIX™ WP

A prepaste adhesive for wallcoverings

SNF FLOERGER®

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FLOFIX™ WP

a prepaste adhesive for wall coverings

"Prepasted wallcoverings have been available in the decorative markets, residential and commercial, for more than 25 years. Basically prepasted wallcoverings comprise a substrate with a dry prepaste coating that will become an adhesive upon contact with water. The adhesive thus activated will provide enough wet bond holding the wallpapers to a wall during hanging, and the adhesion will be maintained or improved in strength as the wet adhesive layer dries at room temperature between the two surfaces (wallpaper and the wall) over a period of 12 to 72 hours. The prepaste wallpapers will then provide a very convenient way and time saving for consumers to have their walls decorated without taking the tedious task to apply an adhesive with a brush or roller to get an even coating for optimum adhesion."

- Traditional natural materials such as starches, dextrin and carboxymethyl cellulose have been employed as prepaste adhesives for wallpapers but there are several drawbacks of using these chemicals such as:

  - dusting,
  - solution preparation and handling resulting solution of high viscosity during coating,
  - thermal instability,
  - higher coating weight (normally over 20 g/m^2),
  - adhesion activity affected by fungi and bacteria,
  - long soaking (more than 2 minutes) to activate prior to hanging.

FLOFIX™ WP is a series of synthetic polymer products (as supplied in a free-flowing, pumpable, low viscosity, stable emulsion form) particularly developed for use as prepaste adhesives for wallcoverings overcoming all the above disadvantages as encountered with the traditional starch and cellulose materials.

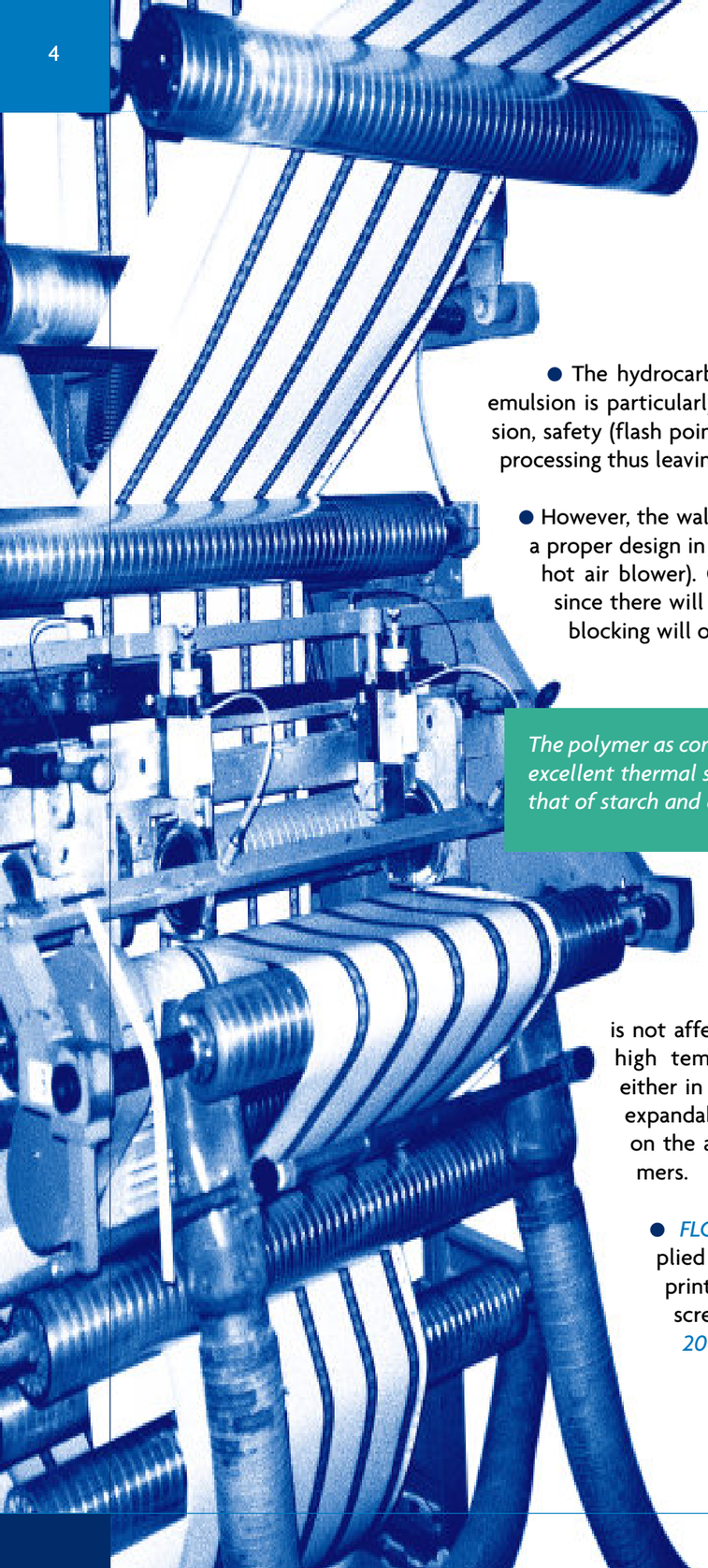
- The composition of *FLOFIX™ WP* polymer emulsion is specially designed as prepaste adhesive for use for various wallpapers such as :

  - solid vinyl,
  - dry strippable,
  - expandable vinyl,
  - peeable,
  - foil.

- Its activation characteristic upon contact with water will provide desired adhesive properties such as paste body, paste feel, slip and pliability. Due to its fast activation characteristic, a soaking time of 5-15 seconds in water is normally enough. The coating weight (on dry basis) of *FLOFIX™ WP* to be applied depends on the wallpaper substrate, but a dry coating weight of 2-6 *g/m^2 is normally used. The conversion of different units of coating weight (such as oz/roll, lb/ream) are shown in the graphs on page 6.*

FLOFIX™ WP

a prepaste adhesive for wallcoverings



● The hydrocarbon solvent as contained in *FLOFIX™ WP* emulsion is particularly chosen thus it will provide stable emulsion, safety (flash point › 60° C), and facile drying during pasting processing thus leaving no residual solvent on the wallpaper.

● However, the wallcovering manufacturers also need to have a proper design in the oven for drying (normally with a force hot air blower). Over drying or under drying is not good; since there will be paste transfer in the former case while blocking will occur in the latter situation.

The polymer as contained in FLOFIX™ WP emulsion possesses excellent thermal stability and much superior shelf life than that of starch and cellulose materials.

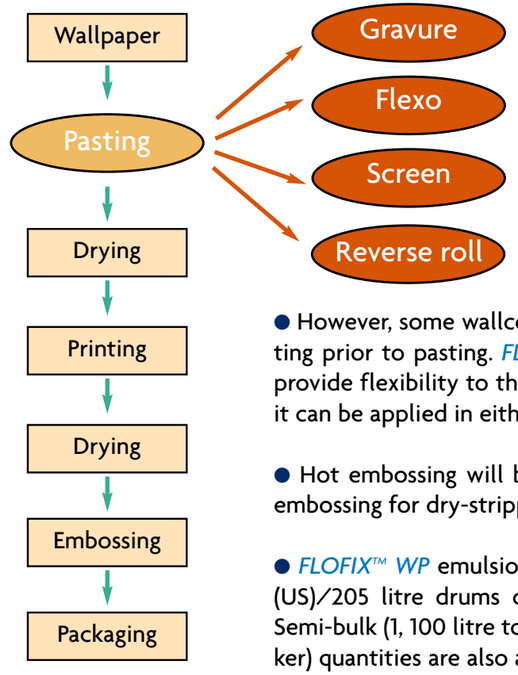
● The adhesion property of *FLOFIX™ WP* is not affected by fungi and bacteria. Moreover, the high temperatures (200-400° C) as experienced either in hot embossing or in production of blown, expandable vinyl wallpapers show no adverse effect on the adhesive properties of *FLOFIX™ WP* polymers.

● *FLOFIX™ WP* emulsion can be applied as supplied to a wallpaper with many conventional printing processes such as gravure, flexography, screen, and reverse roll coating. *FLOFIX™ WP 200* is specifically for screen coating.

● However, *FLOFIX™ WP* can also be diluted with a chosen hydrocarbon solvent to a desired active solid prior to coating to a wallpaper. The line speed is normally 107-122 m/min (350-400 ft/min) for dry strippable, and 76-91 m/min (250-300 ft/min) for solid vinyl wallpaper. With a proper adjustment to a coater, a homogeneous and evenly coating with a desired coating weight is easily achieved with *FLOFIX™ WP* emulsion.

● The ability of *FLOFIX™ WP* polymer emulsion to penetrate to the wallpaper "fibre-matrix" thus upon drying off the hydrocarbon and water, *FLOFIX™ WP* resides in the voids of the paper matrix with a physical binding avoiding paste transfer.

The general flow diagram of wallpaper manufacturing is shown below :



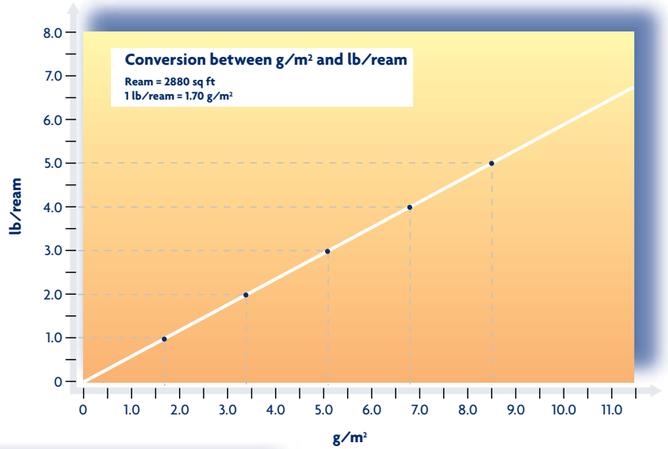
● However, some wallcovering manufacturers prefer printing prior to pasting. *FLOFIX™ WP* emulsion product will provide flexibility to the wallcovering manufacturers that it can be applied in either ways.

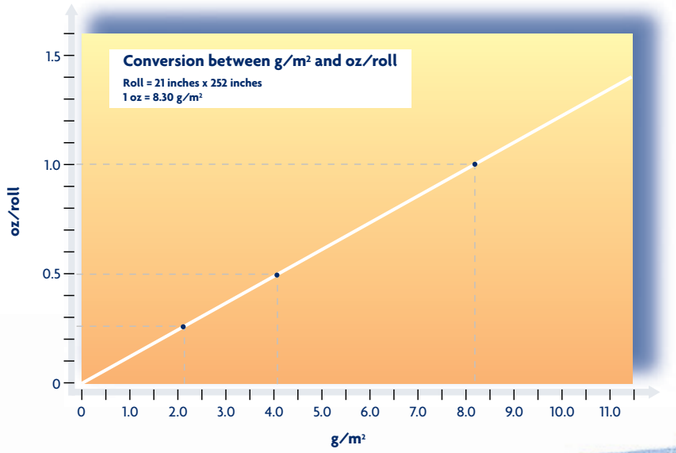
● Hot embossing will be applied to solid vinyl but cold embossing for dry-strippable wallpapers.

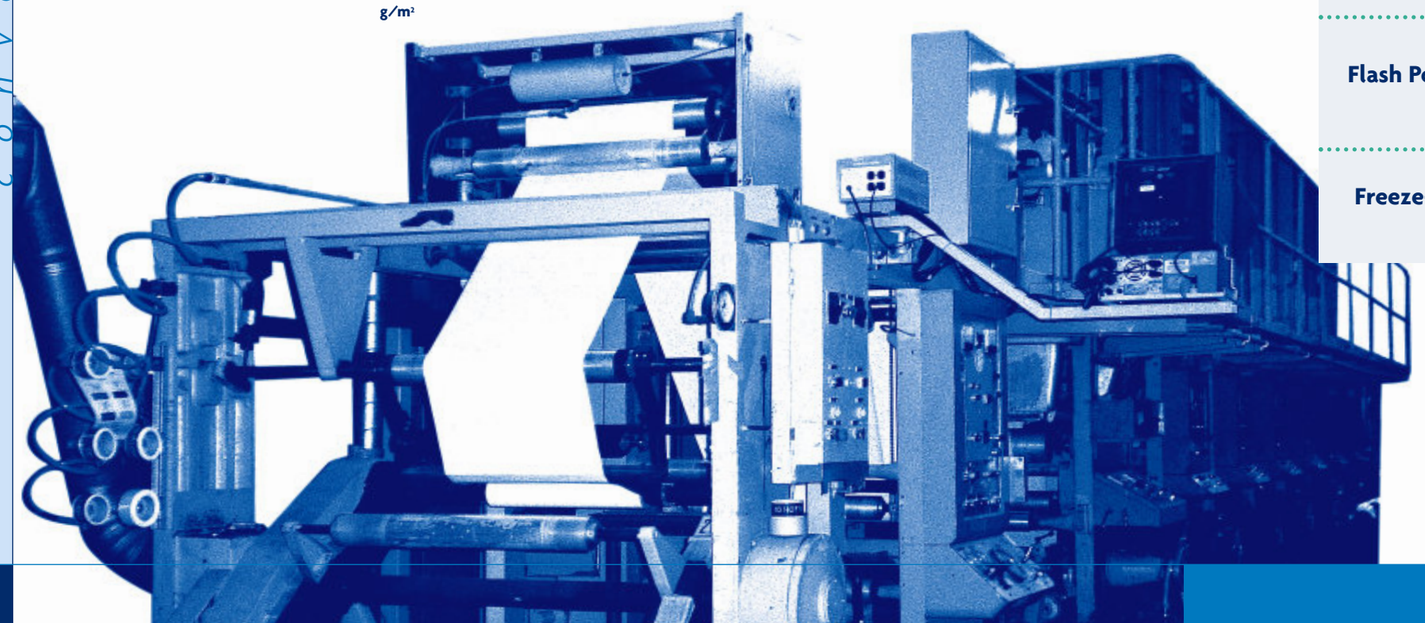
● *FLOFIX™ WP* emulsion product is supplied in 55-gallon (US)/205 litre drums constructed of epoxy-lined steel. Semi-bulk (1, 100 litre tote bins) and bulk (18,000 litre tanker) quantities are also available.

● Detailed information on handling and safety of *FLOFIX™ WP* emulsion products can be found in its MSDS information sheet.

Conversion graphs







graphs

conversion

Technical data

TYPICAL PROPERTIES OF *FLOFIX™ WP* PRODUCTS

PROPERTY	*FLOFIX™ WP 100*	*FLOFIX™ WP 200*
Appearance	white-opaque, free-flowing homogeneous emulsion	white-opaque, free-flowing homogeneous emulsion
Odour	odourless to slight petroleum odour	odourless to slight petroleum odour
Bulk Viscosity, 25° C	50 cps	1,500 cps
Solid Contents	52%	20%
Specific Density, 25° C	1.00	1.05
Flash Point (Close Cup)	> 60° C	> 60° C
Freeze-thaw Stability	Stable	Stable

FLOFIX™ WP

technical data