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INDOFIL HA – 8 (I) TECHNICAL DATA SHEET

SOFT BINDER FOR FLOCKS AND NON-WOVENS

INDOFIL HA–8(I) is a self cross linking acrylic emulsion used mainly in the fields of non woven , lamination , flocking and finishing of textiles .

TYPICAL PROPERTIES

Appearance	: Milky white emulsion
Ph (as packed)	: 3
Solids %	: 45.0 +/- 0.5%
Viscosity (Brookfield spindle no 3 , 60 rpm)	: upto 500 cps
Storage	: Protect from freezing

CATALYST

Since INDOFIL HA–8(I) is a self cross linking acrylic emulsion , catalyst is not needed to achieve durability to washing and dry cleaning . However , to increase the rate of cross linking under the normal conditions of curing, an acid or latent acid catalyst is recommended . Following table will give the quantities needed for each catalyst .

Product	Concentration (by weight)
Oxalic acid	0.1%
Di-ammonium Hydrogen Phosphate	1.0%
Ammonium Nitrate	0.5%

While adding catalysts they should be diluted with water . Oxalic acid should be added from a 10% solution in water while others are added from 25% aqueous solutions . Temperatures at which the cross linking takes place using different catalysts is 120⁰C or oxalic acid , and 140⁰ C for ammonium nitrate or di-ammonium phosphate respectively .

THERMOSETTING RESINS

Harder resins like Melamine formaldehyde resins i.e. Indofil Fixer LF/PF/SVF can be used along with INDOFIL HA–8(I) to increase the wash resistance and it should be used at a concentration of 1-2% on the total adhesive . However , care should be taken to adjust the Ph of the adhesive to 8- 8.5 with liquor ammonia .

THICKENING

INDOFIL HA–8(I) is supplied at low viscosity and as such is required to be thickened up for application in flocking , lamination etc . There are two methods of thickening INDOFIL HA–8(I)

- 1) Acrylic thickeners like INDOFIL ASE 60 TL which swells when neutralized with a base . Maximum viscosity is reached at Ph 7.8 – 8.3 . Normally ammonium

hydroxide is recommended as other fixed alkalis impede curing and may cause yellowing .

- 2) Another way to increase the viscosity of the adhesive of INDOFIL HA-8(I) is the use of carboxy methyl cellulose (CMC) . It can be used along with INDOFIL HA-8(I) by making a slurry with xylene or by using a solution of 8% concentration in water .

ANTIFOAMERS

Antifoamers such as NXZ or NDW are recommended along with INDOFIL HA-8(I) . The concentration at which they are used vary from 0.1% to 0.15% on the total adhesive formulation . While using these products they should be diluted with water before addition to the emulsions .

APPLICATIONS :

FABRIC FINISHING

INDOFIL HA-8(I) can be used along with starch or thermosetting resin to improve the pilling resistance, to achieve dimensional stability of the fabric and increase in tear strength of the fabric . This is particularly of use in permanent press finishing on polyester /cotton/viscose blends . The usage level is from 20-40 gm/litre in the formulation .

NON-WOVEN APPLICATION

There are various methods to get the non-woven fabrics using INDOFIL HA-8(I) . INDOFIL HA-8(I) is suitable for bonding non-woven alone or in continuation with mechanical methods .

1) SATURATION BONDING

Following recipe will illustrate the formulation used for Saturation Bonding of Non-woven fabrics .

INDOFIL HA-8(I)	30 parts
Wetting out agent (10%)	5 parts
Water	61 parts
Di-ammonium phosphate (25%)	4 parts
Total	100 parts

2) PRINT BONDING

The formulation used in this system is as follows

INDOFIL HA-8(I)	95 parts
Anti-foam (1:1)	1 parts
Wetting out agent	2 parts
Di-ammonium phosphate (25%)	2 parts
Total	100 parts

Disclaimer:

The suggestion and data in this bulletin based on information we believe to be reliable. It is offered in good faith, but WITHOUT GUARANTEE, as the conditions and methods of the use of our products are beyond our control. We ALWAYS recommend that the prospective user should determine the suitability of our products and suggestions on an experimental basis first, Before adapting on a commercial scale.

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