WE MAKE THE PALETTE FOR PAPER

BIPL

BHAVI International Private limited

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DATA SHEET

HARIPAL- APMI

(OBA – 220 LIQUID)

Fluorescent Brightener for the Paper Industries

HARIPAL APMI is a fluorescent brightener which yields outstanding white effects with a slightly violet bluish shade on cellulosic materials, especially paper and pulp.

HARIPAL APMI can be applied by surface sizing, surface coating and beater dyeing methods.

HARIPAL APMI is also suitable for use in the exhaust process and the padding process to cotton fabrics.

CHARACTERISTICS:

- Brilliant white effects with a slightly violet bluish shade.
- Versatile in application, and can be applied at stages in paper making.
- Applicable in a wide range of pH.
- Good affinity and excellent white effects for polyvinyl alcohol (= PVA) and oxidized starch.
- Outstanding compatibility with fillers, white pigments, binders and latexes for the paper making.
- Very stable to both acidic and neutral sizing agents.
- The whitening effect is hardly affected by the surface pH of the coating base-paper.
- Very good leveling capacity.
- Good stability to peroxides, reducing agents and resin finishing agents. Therefore, it can be combined with these chemicals.

PROPERTIES:

Chemical constitution	:	Derivative of 4,4'- Diaminostilbene-2,2'- disulfonic acid
Appearance	:	Pale yellowish liquid
Ionic Character	:	Anionic
Solubility	:	Easily soluble in water.
pH of 1 % aq. solution	:	Weak alkaline

STABILITY:

Applicable pH range	:	2.5 - 12 (Preferably, 3 - 8)
Sizing agents		
• Acidic	:	Very good
• Neutral	:	Very good
• Hydrogen peroxide	:	Very good
• Reducing agents	:	Very good
• Resins and resin catalysts	:	Good
• Hard water	:	Good
• Storage	:	Very good (The dilute solutions must not be exposed to direct light.)

COMPATIBILITY OR AFFINITY:

Binders:-

- Starch : Good
- Casein : Moderate
- PVA : Good
- Latex : Good
- Resin : Good

Fillers:-

- Clay : Moderate
- Talo : Moderate
- Calcium Carbonate : Moderate

APPLICATION:

1) Brightening method for pulp (Beater dyeing method)

A) Unsized paper

HARIPAL APMI	:	0.1 - 1.5 % (o.w.pulp)
Pulp ratio (N : L)	:	1 : 3
Pulp concentration:		
a) in chest	:	3.3 % (weight)
b) in flow box	:	0.5 % (weight)
Beating degree	:	400
Thickness of paper	:	150 g/m2

B) Sized paper

- Sized paper can be producted similarly by adding sizing agent and aluminum sulfate properly to the said recipe.

2) Addition to coating colour (Surface coating method)

A) PVA and calcium carbonate composition

HARIPAL APMI 0.1 - 3.0 % (o.w. pigment)

Pigment

- Clay 80 parts
- Calcium Carbonate 20 parts
- Sodium pyrophosphate 0.4 parts
- PVA 117 6.0 parts
- Latex (SBR 0691 A) 8.0 parts
- Ammonia (25 % aq. soln.) 1.0 parts
- Water *) x parts

*) The coating mixture is diluted to a solid matter content (= clour concentration) of 45 % by weight with water.

- Wire rod No. 14
- Coating weight 20 g/m2 (Woodfree paper, one side)
- Coating temperature Room temperature
- Drying condition 2 min. at 90 C.

Oxidized starch or casein composition.

	Starch Comp.	Casein Comp
Clay	100 Parts	100 Parts

Sodium Pyrophosphate	0.15 Parts	0.15 Parts
Oxidized starch	6.0 Parts	--
Casein	--	7.0 Parts
Latex (JSR 0698)	12.0 Parts	--
Latex (JSR 0691 A)	--	12.0 Parts.
Resin (Sumirez resin 613) (Melamine formaldehyde type)	0.6 Parts	--
HARIPAL APMI	1.0 Parts	1.0 Parts
Water *)	X Parts	X Parts
Colour Concentration	58.0 % (Weight)	50.0 % (Weight)

*) Each coating mixtures are diluted with water, to a solid matter content (= colour concentration) of 8.0 % and 50.0% by weight respectively.

Coating condition Same as in 2-A)

3) Size press method

- HARIPAL APMI : 0.1 – 1.5 Parts
- Oxidized starch : 3.5 Parts
- PVA 217 E : 1.5 Parts
- Water : 100 Parts
- Wire rod : No. 9
- Coating weight : 1.0 g/m2 (Woodfree paper, one side)
- Coating temperature : Room temperature.
- Drying condition : 30 – 60 sec. At 60 – 65°C.

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