ChemStar

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DEMUL®GEN RA-AC

ACID REDUCTION CLEARING AGENT FOR DISPERSE DYES

In textile wet processing a lot of procedures exist, which require the use of a reducing agent. ChemStar Indonesia is offering with **DEMUL®GEN RA-AC** a liquid reducing agent, which can be applied in a large number of applications, replacing powder product

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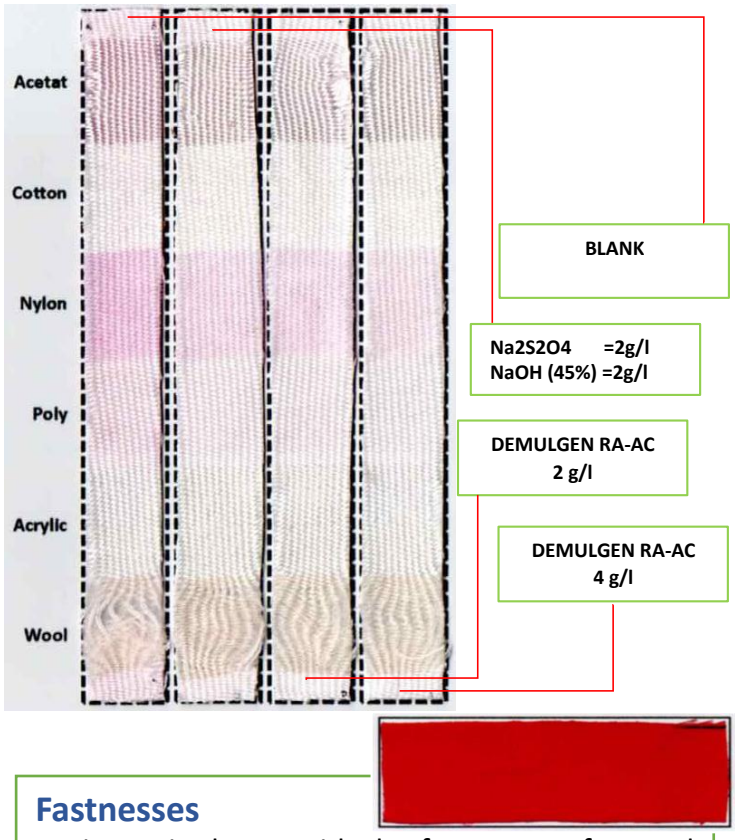
Has an excellent reduction clearing effect in acidic dye baths during the cooling stage and is very good for removing unfixed disperse dyes from polyester and polyester blends fibres and for decolorizing the dye bath.

Product Features:

- **DEMUL®GEN RA-AC** is used to remove unfixed disperse dyes from freshly dyed polyester, and cellulose acetate fibres, as well as from blends of polyester with wool, silk and cellulosic fibres with blends containing elasthane fibres, the suitability of the product must be verified in trials. The product also destroys residual non-exhausted dye in the dye bath, together with loosely attached dye on the fabric.
- Highly effective in acid dye baths during the cooling stage. The pH value of the dye bath 4.0 – 5.0. The product is more effective at lower pH values. When the reductive clearing agent has completely reacted, the pH value of the liquor is practically neutral.
- Can be used in all the usual dyeing machines. As it forms no foam and is stable to air, it can even be used in jet dyeing machines.
- As there is no need to add alkali to the dye bath or to the fresh cleaning bath, or to acidify the polyester after the alkaline treatment, less time energy, water and chemicals are required and the waste water is much cleaner.
- **DEMUL®GEN RA-AC** is readily biodegradable / eliminable.

General Properties

Appearance	**:** Clear to cloudy liquid
Ionicity	**:** Anionic
pH (25°C)	**:** 9.00 - 11.00
Solubility	**:** Easily soluble in water



Fastnesses

A picture is shown with the fastnesses of several polyester fabrics, dyed with disperse red and reduction cleared with **DEMUL®GEN RA-AC**. It is clearly visible that **DEMUL®GEN RA-AC** provides very good results at relatively small amounts.

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ACID REDUCTION CLEARING AGENT FOR DISPERSE DYES

1. Procedur Comparison

If total water of dyeing machine is 2000kg
Equipment capacity 2000kg

ITEM / PROCESS	CONVENTIONAL	ENERGY SAVING PROCESS
Total time	330 min	230 min
Total water	8000 kg	4000 kg
Waste water	8000 kg	4000 kg
Waste color	Dark red (or Blue)	Slight red (or Blue)

2. Washing Fastness (Grey scale value)

DYES	BLANK TEST	CONVENTIONAL	ENERGY SAVING PROCESS	
		Na2S2O4 = 2g/l NaOH (45%) = 2g/l	DEMULGEN RA-AC 2 g/l	DEMULGEN RA-AC 4 g/l
RED 343 (0,5%)	2	4	4	4/5
RED 343 (1.5%)	2/3	3/4	3/4	3/4

Effectivity of the Product in Relation to Temperature

Most reducing agents perform better at higher temperatures. At 70°C **DEMUL®GEN RA-AC** is giving already good results, but higher temperatures up to 80-90°C are generally preferred.

Reduction Potential

Every reducing agent has a certain reducing power called Redox potential. A minimum reducing power is required to decolourise unfixed disperse dyestuff. To develop the optimal performance of a product parameters like pH, temperature and time need to be controlled.

Liquid reducing have in general lower reduction potential than well known powder. This also counts for the **DEMUL®GEN RA-AC.** However, the reducing power of **DEMUL®GEN RA-AC** is strong enough to decolourise most of the Azo-based disperse dyes.

IMPORTANT REMARK

Recommended for light to medium colors.
Compatible with anionic and nonionic products.
Precipitation may occur with cationic auxiliaries or dyes.
Do not bring into contact with strong oxidizing agents such as hydrogen peroxide, sodium chlorite, sodium hypochlorite.

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