

# DyStar® Remazol granules

Remazol DyStar is a heat reactive colour. Its ability to bind with the fibre is moderate. Because of this the colour needs a slightly higher dyeing temperature (approx. 60 °C). Remazol colour molecule forms a tough chemical bond with the fibre, which makes the sustainability of the colour very good. Light resistance varies according to colour tone; generally lighter colour tones can resist/bare less UV-light. The material used for the dyeing process has an effect on the end result, so if you are using a formerly unknown material always test-dye first. With Remazol you can make colour baths, paint and print.

## Suitable materials for dyeing:

From natural fibres dyes for example Cotton (CO), Linen (LI), Hemp (HA), Sisal (SI) and Kapok.

Celluloid Viscose (CV) dyes with variable intensity. From animal fibres at least Wool (WO) and Silk (SE) can be used.

Synthetic and inorganic fibres are unsuitable for dyeing with Remazol colours. For example sewing strings are usually made of Polyester (PES) that is unsuitable for dyeing with Remazol.

Polyamide (PA) makes the only difference and dyes in sour dyeing liquid with variable results.

## Prehandling of the dyeing materials:

The material used for dyeing should always be prewashed to remove any foreign substances used when the material was originally produced. If you are dyeing used materials be always sure that they are clean. The original colour of the dyed material always has an effect on the end result. Worn out or bleached material always gives an uneven result. Pre-soaked material before dyeing gives usually a more even result.

## Remazol Colour Pigments:

Remazol Colour pigments are powders or granules and they should be measured by weight. About 100 g of pigment dissolves in 1 l of water. The temperature of water should be approx. 20 °C. The amount of colour pigment should be measured from the dry weight of the dyed material.

For example: To reach a 2% medium dyeing result use

- 1 kg of dry material
- 20 g of Remazol Colour Pigment.

The black pigment makes an exception, however use

- 30-50 g / 1 kg of dry material.

## Remazol Colour Pigment weight / volume ratios:

Code	Colour tone	g / tbs.	g / dl
	Brilliant Yellow	5	41
	Brilliant Orange	4	40
	Brilliant Red	5	51
	Brilliant Blue	5	48
	Turquoise Blue	8	77
	Navy Blue	6	58
	Black	3	34
F-10	Alginate Powder	8	82
F-11	Sodium sulphate	15	150
F-12	Sodium carbonate (light)	8	80

## The Dyeing Broth:

The Dyeing Broth should be mixed from Water (temperature 60 C), Colour Pigment, Sodium Sulphate and Sodium Carbonate. The amount of water should be calculated in relation to the dry weight of the dyed material. For an even result the proportion of the broth should be: 1:20 - 1:40 litres because the material to be dyed should be freely under water. When you are dyeing knotted batique for example can the proportion be: 1:5 - 1:10 litres.

For example: 1:20 = 1000 g material in relation to 20 litres of water.

## The Aiding Substances:

### Sodium sulphate

When dyeing different materials you can increase the intensity of the colour by adding Sodium sulphate. The amount of Sodium sulphate should be calculated in relation to the amount of water used.

- To 1 litre of water you should always add 50-100 g of Sodium sulphate.

The more brighter and stronger colour tone you want to achieve the more Sodium sulphate you should use.

## Sodium carbonate (light)

Sodium carbonate is an alkalic binding substance.

- To 1 litre of water add 20-100g Sodium carbonate.

The amount of Sodium carbonate increases in relation to the amount of Sodium sulphate.

## Urea (Carbamide)

Urea can be used as an agent to increase the dissolving properties of colour pigment or to increase binding.

## Vinegar

Adding vinegar to the rinsing water stabilizes the pH of the water.

## Manual Dyeing:

1. Make sure that the material to be dyed is prewashed before dyeing, so it's free of all chemical finishing substances.
2. Weigh the dry material to be dyed and then moisten it thoroughly.
3. Dissolve the scaled colour pigment to about 1 litre of warm water. The Remazol Pigment dissolves in 20°C temperature. Notice the amount of water used for dissolving in the total amount of water.
4. Measure the rest of the total amount of water (over 60°C) in the mixing vessel and mix the already dissolved colour in the same bucket.
5. Dip the material to be dyed in the broth and wait that the colour absorbs in the material (approx. 5-10 min.) mix the broth constantly.
6. Pick up the dyed material from the broth.
7. Add the agent (Sodium Sulphate) increasing intensity in the dyeing broth and keep mixing until it has thoroughly dissolved in the broth.
8. Put the dyed material back in the broth and let it soak for approx. 1 hour. The material should be in constant movement to reach an even result.
9. Pick up the material from the broth.
10. Add the binding agent (Sodium carbonate) in the broth and keep mixing until it has fully dissolved.
11. Put the dyed material back in the broth and let it soak for another 1-2 hours. Mix every now and then.
12. Pick up the material from the broth and rinse it with running water until the rinsing water is clear.

13. Boil some water and pour it in the bucket where you have the already rinsed material. Hot water effectively loosens any unbanded colour pigment.

14. Once again rinse the material with running hot water until the rinsing water is clear. Alternatively you can rinse the material in a washing machine using the machines rinsing program. You can also add some rinsing agent for the final rinsing to retrieve the materials original softness.

## Dyeing in the washing machine:

The program for dyeing should last about 1,5-2 hours for a proper reaction time. The amount of aiding substances is easy to measure if you know the total water capacity of the washing machine.

To achieve an even dyeing result you should dye max 1 kg dry weighed material.

1. The aiding substances Sodium sulphate and Sodium carbonate (light) and the Colour Pigment in the same bucket and mix them dry together.
2. Pour the mixed powder inside the washing machines' drum. Shake the drum so that the powder pours under the drum.
3. Moisten the material to be dyed thoroughly before you put it in the washing machine. Select 60 °C washing temperature. Start the washing machine.
4. When the washing program ends, repeat the rinsing program to remove the unbanded Pigment.

## Cleaning the washing machine after dyeing:

Run one washing program with the machine empty to remove any Pigment remnants.



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