



OWR Guard NF

1) Product character

- 1.1) Fluorine – free water repellent Eco – friendly
- 1.2) Free from PFCs (perfluorinated) & banned substances
- 1.3) Optimum water & oil repellency to textiles of all fibers
- 1.4) Better water repellency than wax – or silicone – based products
- 1.5) High resistance to laundering and dry – cleaning

2) Properties

Appearance	Light – beige to white liquid
pH (10% sol'n)	Refer Safety Data Sheet for each item
Ionicity	Weak cation
Dilutability	Readily miscible with cold or warm water
Aggregate	Mainly padding, slop – padding, spray method. And in foam application in some cases.
Influence on colored goods	Does not normally impair either the shade or fastness properties of the dyeings
Shipping & storage	12 months in proper condition (5~ 35°C)
Ecotoxicological data	The product meets Oeko-tex labeling.

OWR Guard NF is suitable for water – repellent finishes on articles of all fibres e.g. cellulose, synthetic fibres, wool and their blends without influencing the breathing properties of the material. They are especially suitable for cellulose or their blends

3) Application

3.1) Preparation of the goods

Goods to be treated must be thoroughly washed & free of surfactants.

3.2) Liquor formulation

If synthetic resins or other products are to be applied at the same time, they should be pre-dissolved in the water. When fugitive wetting agent (such as isopropyl alcohol or isobutyl alcohol) is used, it is essential that the alcohol must be thoroughly dissolved and diluted before other bath components are added.



3.3) Application Q'ty & Condition : Padding

OWR Guard NF	for general application	for superior & long - durable effect
Polyester	40~ 80 g/l	OWR Guard NF Up to 100 g/l Plus X g/l of Product EX - 002
Polyamide	40~ 80 g/l	
PES/Co, PA/Co	60~ 80 g/l	
Cotton, Wool	60~ 100 g/l	

More additions of **OWR Guard NF** improve the water repellency & their resistance to laundering. Also apply higher quantity on thick fabrics of woven.

3.4) For long-durable water repellency under frequent laundering

3.4.1) Apply higher quantity of **OWR Guard NF**

3.4.2) Use **Product EX - 002** (use 5~ 10% of **OWR Guard NF** applied)

Padding	Pick-up	Pre-drying	Curing
1 dip- 1 nip	Nylon, Polyester	160°C x 30 sec	180°C x 30 sec
	PES/Co, PA/Co	150°C x 1 min	170°C x 1 min
	Cotton	140°C x 2 min	160°C x 2 min

pH condition : set pH 5~ 6 (should be less than pH7)

Pick - up ratio : according to the type of fibre

3.5) Pre - drying & Curing

The temperature and time written above is the optimum condition for modern m/c. To apply them at low temperature, followings also can be a reference;

Pre - dry: 110~ 130°C x 2 min

Curing: 140~ 150°C (minimum 135°C above) x 2 min

The curing time depends on temperature, material, weight of goods & curing unit: the higher the temp., the shorter the curing time, e.g. 30~ 90 seconds at 180~ 160°C. Higher curing temperature can bring better effect on washing durability.

3.6) Other Application method

OWR Guard NF is applicable in padding, spraying, foam processes. Padding process ensures the best effect. If they are applied by spray method, sufficient exhaustion is essential or respiratory protection must be used.



3.7) Co - Use with other Finishing Agents

Most of general finishing agents (softeners, antistatic, flame retardant etc.) deteriorate the water & oil repellency of fluoro- chemicals a lot. Therefore, avoid using such agents which degrade water & oil repellency. And consult our technical division.

4) Safe use and handling

Good hygienic and industrial practices should be followed and, when employed as recommended, **OWR Guard NF** will not present any hazard. However, prolonged skin contact with the neat product should be avoided and any splashes on the skin should be washed off with water.

The information herein is, to the best of our knowledge, correct and complete. It is based not only on the work in our laboratory but also on the reported results of other workers in this field. It is offered without guarantee of specific properties and no patent liability is assumed. No liability can be accepted for any loss, injury or damage resulting from its use.

