

NURI INDUSTRY CO., LTD.

45-10 Nueup-dong, Osan, Gyeonggi, Korea

Tel : 82-31-372-4330, Fax : 372-4360, E-mail : sales@nuriind.kr

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(Fluorochemical resin solution for synthetic Leather)

NF-31 provides oil and water repellency, low absorption and waterproofness when it is added to polyurethane-coated material such as dry and wet process synthetic leather, waterproof/breathable fabrics.

1. Specification

Appearance : Yellowish brown opaque solution
Effective ingredient : $60 \pm 1 \%$
Viscosity : 500 ~ 3,000cps / 25°C
Solvent : DMF / MEK

2. Characteristics

- Low surface energy
 - Excellent oil and water repellency
 - Very low absorption to water
 - High water-pressure resistance
 - Easily handled
- (Requires no special catalysts, boiling or mixing procedures)

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- Fully compatible with various polyurethane resin solution
- Protection holds up even after repeated washing or dry cleaning

3. Applications

- To provide oil and water repellency to woven or nonwoven fabrics when being added to polyurethane dipping solution.

(comparing to conventional emulsion type of oil and water repellents, NF-31 gives following advantages in economic and quality-wise)

- a. Economic savings with reduction of working process and yield-improvement because of more effective hindering void(or air pocket)
 - b. Quality-improvement with no deterioration of adhesion strength
- To provide low absorption when being added to polyurethane coating solution for wet process.

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- To provide high water-pressure resistance to dry or wet type of waterproof/breathable fabrics when being added to polyurethane coating solution
(without reduction of humidity permeability)
- To provide oil and water repellency to surface layer of synthetic leather when being added to surface coating agent.
(without change of surface-touch)

4. General application recommendations

(4-1) How to add to **dipping solution** for wet process synthetic leather.

Object. Hindering Void (or air pocket),
 Reduction of working process,
 No deterioration of adhesion strength.

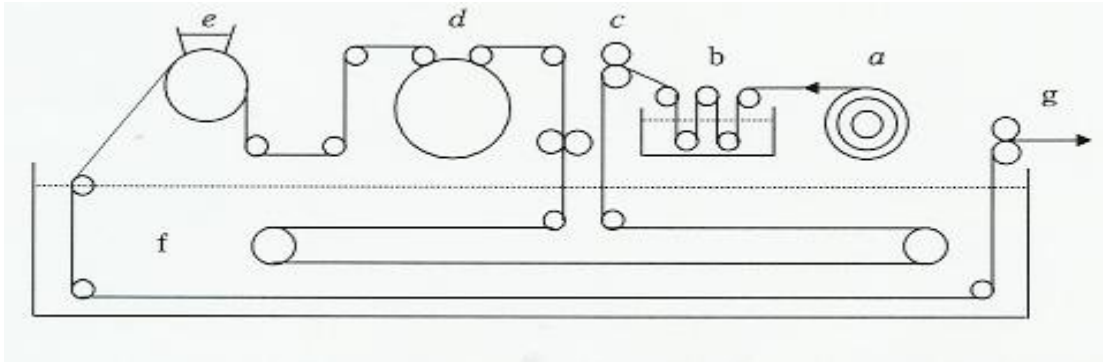
Recipe. PU resin 100
 NF-31 **0.3 - 0.4**
 Black toner 5
 D M F 220 - 250

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Process.



- a. NWF (210g/m², NF-31 may be added at 0.4 ~ 0.5phr for heavier NWF)
- b. Dipping solution
- c. Squeezing (pick-up about 700g/m²)
- d. Heating drum
(semi-drying, water absorption 20-50%)
- e. Coating solution
- f. Coagulation
(DMF conc. 20-25% × Temp. 25-35°C)
- g. Washing

(4-2) How to add to **coating solution** for wet process synthetic leather.

Object. Hindering water absorption for Soccer ball and Golf shoes, Snow-shoes.

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Recipe.	PU resin	100
	Additives	2 - 4
	NF-31	0.4 - 0.5
	White toner	5
	D M F	40 - 50

Process. " Same as (4-1)"

(4-3) How to add to coating solution for wet type
waterproof/breathable fabrics.

Object. Increasing water-pressure resistance

Recipe.	PU resin	100
	Additives	2 - 3
	NF-31	0.3 - 0.4
	White toner	5
	D M F	50 - 70

Process.

Backing cloth → pre-treatment for water repellency →
under-coating → Top-coating → coagulation & washing →
drying → post-treatment for water repellency

5. Packing

20Kg / closed pail can