

NURI INDUSTRY CO., LTD.

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

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(Fluorochemical resin solution for synthetic Leather)

NF-631 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 opaque solution

Effective ingredient : 70 ± 1 %

Viscosity : 1,000~5,000cps / 25℃

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

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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-631 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.

- 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)

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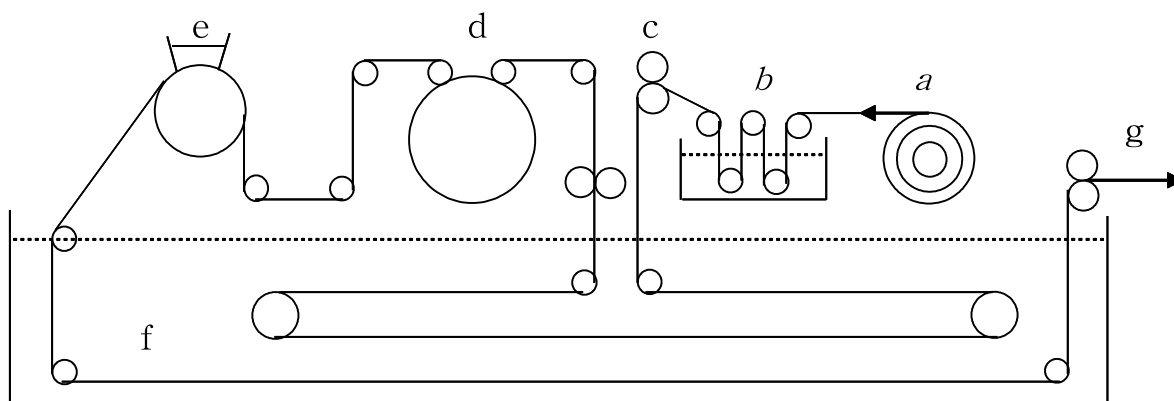
4. General application recommendations

(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-631	0.3 - 0.4
	Black toner	5
	D M F	220 - 250

Process.



- a. NWF (210g/m², NF-631 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

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(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.

Recipe. PU resin 100
Additives 2 - 4
NF-631 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-631 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