



SYNTHETIC ACRYLIC RESIN FOR FABRIC COATING ***TOA ACRON XF-3771***

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(1)Introduction

TOA ACRON XF-3771 is one kind of synthetic acrylic resin developed for fabric finishing. For XF-3771, it is usually used on the applications of top coating and hard hand feeling.

As XF-3771 used as top coating, it doesn't produce any stickiness; and with excellent weather resistance as well as other TOA ACRON products.

If fabric coated with XF-3771 alone, it can produce hard hand feeling. XF-3771 can also mix with other TOA ACRON product to get most suitable hand feeling.

(2)Form of TOA ACRON XF-3771

Appearance:	light yellow sponge like
Main ingredient:	copolymer of reactive type acrylic monomer
Viscosity:	40,000±8,000 cps/20°C (30% toluene solution)

(3)Usage of TOA ACRON XF-3771

(A)Formulating solution:

- (a) It usually uses toluene or ethyl acetate as solvent for formulating solution.
- (b) Heating makes dissolving fast, but should avoid temperature above 60°C.

(B)Examples of coating processes:

(a) Recipe for coating solution:

(i)Solution:

XF-3771	27 parts
Toluene	73 parts
Total	100 parts

Dissolve XF-3771 thoroughly and cool down the temperature if with any heating.
Viscosity: 16,000~26,000 cps/20°C

(ii)Solution for coating:

Solution above	100 parts
Crosslinking agent	1.5~3 parts
Toluene	within measure

It should be diluted by toluene, add crosslinking agent isocyanate (NCO%=7.5%) into it.

- (b) Fabric: Nylon Taffeta (75d, #210)
- (c) Coating method: Knife coat
- (d) Coating quantity: 5.5 g/m²
- (e) Processing method: After coating, drying 1 min by 80°C ~ 130°C gradual temperature. Wait at least 12 hrs for further or other processes, for example, dipping process.
- (f) Result of physical property testing:

Water proofing pressure test	
Normal condition	1,260 mmH ₂ O
Washing three times	970 mmH ₂ O
Dry cleaning	1,080 mmH ₂ O
Adhesion to fabric	excellent
Touch feeling	excellent

(C) Film Properties of XF-3771:

Tensile resistance strength	78 Kg/cm ²
Elongation percent	500%
Brittle point at low temperature	-18°C

Gehmon freezing point