



SYNTHETIC ACRYLIC RESIN FOR FABRIC COATING ***TOA ACRON SA-410M***

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(1)Introduction

TOA ACRON SA-410M, which is synthetic acrylic resin with very high conversion, is newly developed by TOA company. Cloth coated with TOA ACRON SA-410M can produce higher water pressure resistance. Because of introducing special functional group in SA-410M, it is best-suited for fabric coating and enhances the features of any fabric.

(2)Features of TOA ACRON SA-410M

- (A)Since introducing reactive sites into TOA ACRON SA-410M, it provides a distinguished film and improved water pressure resistance and solvent resistance.
- (B)It has splendid adhesion to nylon or polyester fabric as compared with ordinary type acrylic elastomer.
- (C)Dissolved TOA ACRON SA-410M produces excellent consistency that is best-suited for coating system and enhances working efficiency.
- (D)Such cloth coated with TOA ACRON SA-410M has no stickiness, and is hardly subjected to change in feeling by touch. Its resistance to weather is very satisfactory too.

(3)Form of TOA ACRON SA-410M

Appearance: white or light yellow sponge like
Purity: above 99.5%
Viscosity: 30.0% toluene solution (20°C) = 58,000±10,000 cps
(R.V.F. type viscometer)

(4)Usage of TOA ACRON SA-410M

(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:

SA-410M	29.0 parts
Toluene	70.0 parts
Total	100.0 parts

Dissolve SA-410M thoroughly and cool down the temperature if with any heating.
Viscosity: 30,000~50,000 cps/20°C

(ii)Solution for coating:

Solution above	100 parts
Crosslinking agent	5~6 parts
Toluene	within measure

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

(b) Fabric: Nylon Taffeta (70d, #210)

(c) Coating method: Knife coat

(d) Coating quantity: 11 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	5,000 mmH ₂ O
Washing three times	1,800 mmH ₂ O
Dry cleaning	2,000 mmH ₂ O
Adhesion to fabric	excellent
Touch feeling	excellent

(C)Film Properties of SA-410M:

Tensile resistance strength	60 Kg/cm ²
Elongation percent	700%
Brittle point at low temperature	-32°C
Swelling percent in solvent	350%

Gehmon freezing point
Swell in trichloroethylene