

API-BI795

Product Overview

API's API-BI795 is a blocked urethane pre-polymer that can be defined as an isocyanate reaction product, which is stable at room temperature but dissociates to regenerate isocyanate functionality under the influence of heat. API-BI795 is highly branched with blocked isocyanate groups on the ends.

Temperatures between 120oC and 180oC are necessary to release the blocking agent, which will volatilize from the coating. The resulting isocyanate can react with other active hydrogen-containing compounds to form more thermally stable urethane or urea linkages. API-BI795 blocked urethane pre-polymer can be added directly to most waterborne formulations with mild agitation. Blocked urethane pre-polymer may be utilized in coatings for wood, leather, inks, adhesives, textiles and waterborne coatings for metal.

Physical Properties

APPEARANCE:	Pale Yellow Solution
SOLID CONTENT:	20%
PH:	6
SPECIFIC GRAVITY (@25C):	1.1

Applications

- Excellent wash durability for fluoropolymer treated fabric; retaining water and oil repellency performance
- Long term pot-life in aqueous systems
- Excellent compatibility due to its non-ionic nature
- Excellent adhesion to substrates
- Curing temperatures 120°C - 180°C

Packaging

Available in 8 oz. samples and 397-lb drums.

Application Methods

The following is an illustration of API-BI795 durability evaluation in conjunction with APG-5206, a waterborne C8 based fluoropolymer emulsion. In a concentrated formula the active content of APG-5206 was kept constant at 2% actives, while the BI-795 was varied from 0 to 4% active content. Bath formula was diluted to 1% active based on the flouropolymer active ingredient.

Application Conditions:

Substrate: Cotton/Poly (50/50)

Apply via pad @ 40 psi

Dry & Cure @ 325°F x 4 min

Test & Wash Conditions:

AATCC Test Method 193

Water Temp @ 60°C

Water Level @ 12 Gal

Wash Type: Regular

Dry Type: Medium @ 40 min

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