

Gemini[®] Superhydrophobic Finishing for Textile

AnT-180

[Introduction]

AnT-180 is superhydrophobic finishing for textile, it is water based 2 parts bake curing type. Combining ramified compact bonding with fluorine-free and eco friendly, it has ultra durability through home laundering, dry cleaning, tumble drying, ironing. The finishing fabrics have good handfeel and breathability, no chalk mark and no change of original color. It brings fabrics great protection from rain, aqueous stains (Pepsi, Juice, Tea, Vinegar, Wine, Milk, Cafe, Dirt water, Honey) and excellent resilience to abrasion, wear, meanwhile it has good sewability and mass production runnability. It is perfect for synthetic fiber like polyester, synthetic-cotton blends, natural fiber like wool, silk.

[Typical Properties]

Properties	Units	AnT-180
Solid	Wt%	25
Appearance	/	Whitish emulsion
Density	g/cm ³	~1
PH	/	~7 (Can adjust to acidic in sink of impregation)
Ion type	/	Nonionic
Solvent	/	Water
Baking Temperature / Time	/	100~120°C drying & 150~170°C bake curing 1~3mins

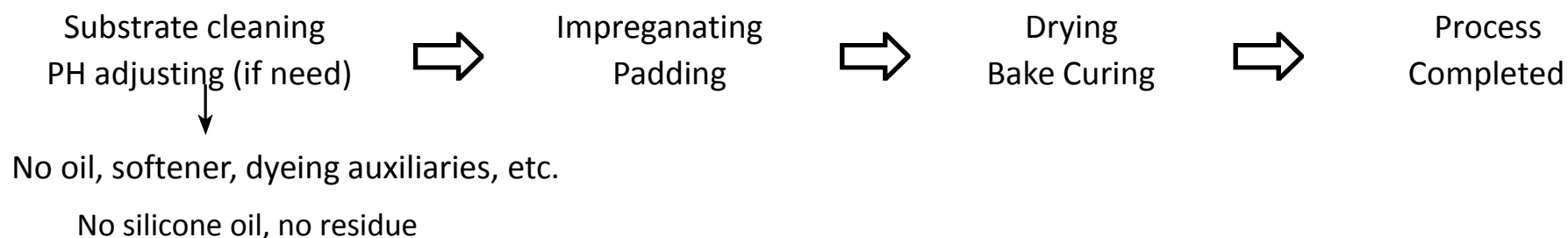
[Performance]

Test Item	Test Method				AnT-180
Water contact angle	10~20 μ L Water				140° ~160°
Finishing color	Observation				Transparent
Water spray test	ISO 4920:2012				4~5 grade
Spray test after wash	ISO 6330:2012	50 wash cycles	ISO 4920:2012	Polyester	3~4 grade
Spray test after wash	ISO 6330:2012	100 wash cycles	ISO 4920:2012	Polyester	3 grade

[Processing Method]

Dilution: Mixing mass ratio A:B=3:1
Standard automatic textile finishing flow:

Mixture dilute by tap water 40 folds to approx 25g/L
Fabric impregnation, Pad-Dry-Cure.



- After mixing of parts A/B, must use it up within 1 week, or it will crosslink
- Feeding sequence. First add tap water, then other additives/auxiliaries, last input A/B mixture
- Add 0~1ml acetic acid (60%) per liter tap water into sink to adjust solution to acidic, slight bubbles flowing is normal
- Cleaning pretreatment (if necessary). Before this fabric processing on the machine, the oil, softener, dyeing auxiliaries, etc. should be fully removed from the previous process. The fabric to be treated ought to be clean and free of residues. In particular, no protective materials such as silicone oil are allowed to remain on the surface. This is in case some fabric factories are coated with silicone oil to prevent yellowing before shipping out
- Fabric impregnation, Pad to reduce the wet pick-up. Make sure the solution completely wets the fabric during impreganating, certain wetting agent can be used (if needed), the wetting agent should be a silicone type. After the impreganating process, run the line through a padder to reduce the wet pick-up to 30~60%. Padder pressure setting is no more than 3 tons
- Dry、Cure. Adjust the drying / bake curing temperature and time appropriately according to the type and thickness of the fabric, keep the line speed slow, run at about 20~24 yards per minute
 Drying conditions: 100~120°C to fully dry the fabric through the dryer line
 Bake curing conditions: 150~170°C for 1-3 minutes through the baking line

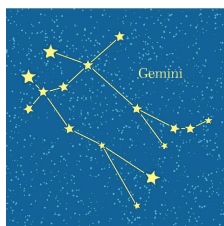
Attentions: The fabric finishing superhydrophobicity and washability are greatly related to bake curing. Please make some testing runs and adjust the machine setting to optimize your own production line

[Attention]

- During processing, avoid direct contact with the skin, using gloves and safety glass in the test. If skin contacts with products, immediately wipe with a dry cloth and then wash skin with soap and water, If eyes contact with products, immediately flush eyes with plenty of water for at least 5 minutes, and call a physician.
- Keep the container sealed and store A/B SEPERATELY between 5~35°C, well ventilated locations, shelf life is 1 year, avoid freezing and overheating. After mixing of A/B, must use it up within 1 week, or it will crosslink.

[Packaging/Transport] 50kg,100kg plastic jug.

Not classified as dangerous in the meaning of transport regulations



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