

# ATTL-GUARD TECHNICAL DATA

ATTL-GUARD Product	Emulsion	~% Solids ~[% F]	Flash Point Close Cup	Product Information
F-5M7	Cationic	~28 [~ 5]	> 100 °C	Economy grade suitable for all fabrics - Optimized for Nylon and Nylon blends
F-23G3	Cationic	~28 [~10]	> 100 °C	Durable O&WR suitable for all fabrics, excellent for polyester. Outstanding emulsion that is compatible with most resins and other finish bath additives.
F-23M4	Weak Cationic	~28 [~8]	> 100 °C	Excellent and Economical for Synthetics and Synthetic blends. Works well on Cellulose.
F-35G3	Weak Cationic	~28 [~10]	> 100 °C	For Nonwovens - Soft hand - needs a cross linker for durability. Excellent on cottons
F-45G2	Weak Cationic	~20 [~4]	> 100 °C	Durable soft hand with low yellowing. Low cure temperature with low mark-off.
F-82G3	Amphoteric	~28 [~10]	> 100 °C	High durability - excellent for cotton and synthetics - Low VOC content - Low cure temperature
AF-89G3	Cationic	~28 [~9]	> 100 °C	Anti-Static DWR - designed for use on Polyester and Polyester blends. Excellent on Polypropylene.
F89G3	Weak Cationic	~28 [~9]	> 100 °C	Designed for use on Polypropylene - Low cure temperature - Very compatible with other additives
F-55G2	Very Weak Cationic	~28 [~9]	> 100 °C	Grease, oil, and water repellent for paper packaging products. Not approved for direct food contact.
F-32G9	Very Weak Cationic	~25 [~1.5]	> 100 °C	Concrete and/or wood products - For use where cure temperature is > 270 °F. For addition into fiber board mixes. Product yellows slightly on aging.
F-37G9	Amphoteric	~24 [~1]	> 100 °C	Concrete and/or wood products - "Air Cure" spray application to Concrete or Wood Products. Product yellows slightly on aging

**APPLIED TEXTILE TECHNOLOGIES, LTD.**

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# ATTL-EASE TECHNICAL DATA

ATTL-EASE Product	Emulsion or Dispersion	~% Solids ~[% F]	Flash Point Close Cup °C	Product Information
SR-T	Nonionic	~12 [~0]	> 100	Superior wicking with good soil release on polyester. Can be exhausted or pad applied. Reduces static cling. Hydrophilic.
SR-T28	Nonionic	~28 [~0]	> 100	Same as ATTL-Ease T but at ~28% active
SR-T extra	Nonionic	~12 [~0]	> 100	Extra wicking makes this the best product for moisture transport away from the body. Good soil release properties on Polyester. Can be exhausted or pad applied. Reduces static cling. Very hydrophilic.
SR-PA	Anionic	~14 [~0]	> 100	Superior soil release properties on Polyester and Polyester blends. Work well with Crease Resistant Finishes [CRF] on Polyester blends when pre-exhausted on the Polyester.
SR-84T9	Nonionic	~28 [~1]	> 100	Excellent oil repellency and oil release. Very hydrophilic.
SR-11G3	Very weakly cationic	~21 [~4]	> 100	Excellent soil and oil release combined with good water and oil repellency to small spills.
SR-370G3	Amphoteric	~22 [~6]	> 100	" Air Curable" O&WR. Can be cured at very low "dry off " temperatures. Should not be heated above 120 °C

Applied Textile Technologies, Ltd. (**ATTL**) has a full range of products that can be used to optimize the overall performance of end use products that get fluoropolymer application.

Some of these products are:

- ATTL-Scour JP-SZ2 - Special scour for preparation that does not interfere with the final DWR performance.
- Aptex Product STF-4 - Chelate and stabilizer for use with ATTL-Scour JP-SZ2.
- ATTL- Lev range of levelers for all fibers each designed not to interfere with final Fluoropolymer performance.
- ATTL-Clear AD-5 - Special none reductive clear for polyester made specifically not to interfere with Fluoropolymer performance. Also removes trimer.
- Foamcutter ERS - Defoamer/Wetter for use in pad application of Fluoropolymers.
- Foamcutter FC-5 - Special defoamer/wetter for use in spray application of O&WR.



### **GAPTEX REPAIR ACTIVATOR RA4-PD**

- A product for pigment dyeing that replaces part of the anti-migrant and will repair small defects in the dyeing such as string marks, small pad scars, and small roll marks. This very viscous product also acts as a booster for the antimigrant and increases color yield 5% to 10%.

### **GAPTEX BUFFER AB**

- Buffer for alkaline dyeing of polyester. Maintains the dispersion of trimer even at neutral pH. Doing alkaline dyeing of polyester eliminates trimer and the need for reduction clearing.  
Normal usage level 5 g/l

### **GAPTEX BUFFER FB**

- Liquid alkali to replace tsp and/or soda ash. Not based on phosphates or silicates. Excellent buffering properties. Use half the amount of tsp recommended for reactive dyeings.

### **GATACRYL 813**

- Self cross linking acrylic binder designed to be used as a binder for metallic pigments( silver, gold and other metals).  
Normal usage level 1.0% to 10.0%

### **GATACRYL NT-FF**

- Self cross linking acrylic binder for high wet fastness on pigment dyeing  
Normal usage level 1.0% to 10.0%.

### **GATACRYL IFS**

- Formaldehyde free acrylic binder with a firm but elastic hand. Used as a hand builder for products being exported to Germany.  
Normal usage level 1.0% to 10.0%

### **GATACLEAN 415 EXTRA CONC.**

- Industrial strength All Purpose Cleaner for many uses. Highly built cleaner for cleaning and degreasing machinery, cleaning floors, cleaning counter tops and walls, etc.  
Normal usage level 0.5% to 2.0% or neat for machine cleaning.

### **GATACLEAN FLH**

- High foam scour for boil-outs on jets. An anionic cleaner.  
Normal usage level 1 to 2 g/l for Boil-outs

### **GATACLEAN 339**

- Special scour for trimer from polyester. Works in combination with caustic to decompose polyester fibers and trimer during boil-outs. High foam scour for boil-outs on jets. Cationic cleaner.  
Normal usage level 1 to 2 g/l for Boil-outs

### **GAPTEX-DEAREATOR DE-6-AD**

- Designed to de-gas beam and package dye machines during scouring and dyeing. Excellent at reducing "fingers" , light edges and side center side shading. Not recommended for pressure

dyeing. Completely Non-Foaming.  
Normal usage level 0.5 to 1 g/l

#### **FOAMQUELL 2001**

- Free rinsing poly-siloxane glycol defoamer - non-ionic. Excellent for jet dyeing.  
Normal Usage Level - 0.1% to 1%

#### **FOAMCUTTER PF-85**

- Hot aqueous defoamer that is 100% active. Excellent with disperse dyes. Tested to 280 DegF in jet dyeing. Also an excellent deareator for pressure systems.  
Normal usage level 0.5 to 2 g/l

#### **GAPTEX BEAM DISPERSANT**

- Disperse dye dispersing agent - polymeric, sulfate and sulfonate condensate blend also an excellent dye solubilizer - disperse or reactive. To be used in pressure and atmospheric beam dyeing.  
Normal usage level 0.25% to 2.0%

#### **GAPTEX JET DISPERSANT( Low Foaming )**

- Disperse dye dispersing agent - polymeric and sulfonate condensate blend also an excellent dye solubilizer - disperse or reactive. To be used in pressure and atmospheric jet dyeing.  
Normal usage level 0.25% to 2.0%

#### **GAPTEX FLOW ENHANCER TM**

- Flow enhancer for beam dyeing that can be measured by a reduction in back pressure on the pump and an increase in static pressure on top of the beam. This product works by penetrating every part of the beam and making sure that water follows to every part.  
Normal usage level 1 to 3 g/l

#### **GATALUBE SW EXTRA**

- Dye bath lubricant. Non-ionic and non-foaming copolymer lubricant for jet dyeing. Greatly improves runability, reduces tangles, and reduces "crack and crush" marks.  
Normal usage level 0.5% to 3%

#### **GATALUBE HE-1**

- Jet dye lubricant for low wet modulus rayon that greatly reduces the fabrics ability to tear when wet. Usual reduction in tearing is 80% - 90% excellent lube for sulfur blacks to reduce scuff marks. Can be used equally well on all types of polyester, nylon, and cellulose dyeing. Very economical to use.

#### **GATAFIX VAS-J**

- Acid stable nylon fix with excellent wash fastness and excellent cold water bleed performance. Supplied at neutral pH.

#### **GATAFIX XS-d**

Highly acid stable fix for nylon supplied in a solution of acetic acid 25%.

Excellent wash fastness and excellent cold water bleed performance. Best results when used with 1 g/l of citric acid during application of the fix. This product has a very soft hand on nylon - does not build stiffness on excess use.

#### **GATALEV 180**

- Leveler for direct dyes on cuprammonium rayon and viscose rayon, and poly cellulosic blends. Well suited for beam, beck, package, and garment dyeing. Not suited for jet dyeing because of foam.  
Normal usage level 1 to 3 g/l

#### **GATALEV F-705-C**

- Leveler for most dye classes - will work on acid, direct, disperse, naphthol, and reactive dyes. Acts as a dispersant for reactive and disperse dyes. Also is a very effective dye bath lubricant. Excellent for Acetate and Acetate blends.  
Normal usage level 1 to 3 g/l

#### **GATALEV PMIS**

- is a special leveler for polyester that is a true solvent for trimer. Excellent for trimer control. This product can also be used as a repair carrier for polyester.  
Normal Use Level - 0.75% to 1.25% as a Leveler. 3.0% to 4.0% as a Carrier.

#### **GATACLEAR AD-5**

- Liquid clearing agent for polyester that is safe to use even after the cellulose is dyed on blended fabrics. Completely eliminates the need for reduction clearing. The process temperature can be as low as 80 °f and is typically 110 °f. This product is used under acid conditions. Typical cycle savings of 35 to 55 minutes are routinely achieved.

Contains No HAP's or APE's.

#### **GATASCOUR SP-DP**

- polymeric scour. Excellent dispersion characteristics. Non-foaming. Excellent for boosting the performance of other scours. Also excellent chelating performance. Chlorine stable.  
Normally used at 0.2% to 0.8% levels.

#### **GATASCOUR JP-SZ-5**

- scour for preparation, excellent wax emulsifier and solvent scour ( only 8% total solvent). Solvents are environmentally friendly. Gives extractables of 0.2% routinely on woven fabrics sized with polyacrylic acid or sulfated polyester sizes. Excellent desize scour for PVA and PVA starch blends.  
Use from 0.5% to 2.0%

#### **CRYSTAL SOFT 1010**

- water soluble silicone softener for use with resin finishing. Can also be used as a fiber softening agent for acetate blends in the dye bath. Excellent for reducing crush marks on acetate blends. Very effective retarder for disperse dyes in acetate dyeing. Will cross-link to CRF resins in resin finishing to improve hand and improve abrasion resistance .  
Normal usage level 0.25% to 0.50% in dyeing or 1.0% to 2.0% in finishing.

#### **GATASOFT FABRIC SOFTENERS:**

**ATTL** has a complete line of Amino polysiloxane fabric softeners That will exhaust or can be pad applied. These include a true non-yellowing softener for optical whites and special softeners for pigment pad dyeing and pigment prints. **ATTL** has developed several hydrophilic silicone softeners designed for use with soil releases that actually enhance the durability of the soil release agents.

#### **GATA-TARD FLAME RETARDANTS:**

**ATTL** has a complete line of flame retardants. These include Phosphorus and Bromine based products.

#### **GATA-CIDE ANTIMICROBIALS:**

**ATTL** both fast acting and durable antimicrobials. These antimicrobials have a multitude of uses, from anti-odor shoe liners, anti-odor socks, antibacterial coatings for hospital garments to fungicides for tents and sleeping bags.