SW-1001

Polypropylene staple fibers For Spunlaced wipes

Personal care wipes

Home care / Industrial wipes

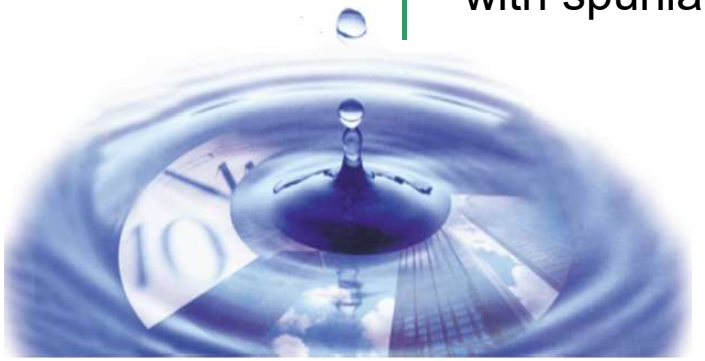
All-purpose wipes

Introduction

PP staple fibers for Spunlace

Kolon Advanced Fiber Inc. is a leading manufacturer of polypropylene staple fiber in Asia. Since established in 1989, it has provided raw materials for hygienic and industrial fields.

Now, Kolon Advanced Fiber Inc. is introducing SW-1001 for spunlaced wipes to customers. SW-1001 is adequate to produce spunlaced nonwovens that are greatly growing due to the demand of markets and especially designed to be familiar with spunlaced wipes.

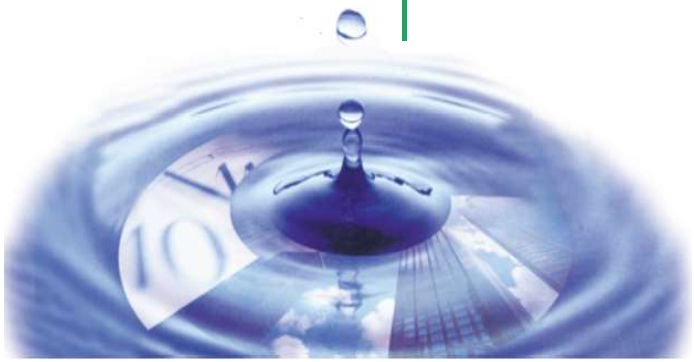


Features & Benefits of SW-1001

1. High soaking power to any kind of solution for wipes.

The absorptive capacity of SW-1001 is the same level compared with viscose based products concerning wipes solution.
It can be controlled by the surface energy of SW-1001.

If SW-1001 is blended with at least 40% viscose fibers, the spunlaced nonwovens will have the excellent absorptive capacity concerning water.



Features & Benefits of SW-1001

2. Can make bulkier and thicker wipes than traditional wipes :

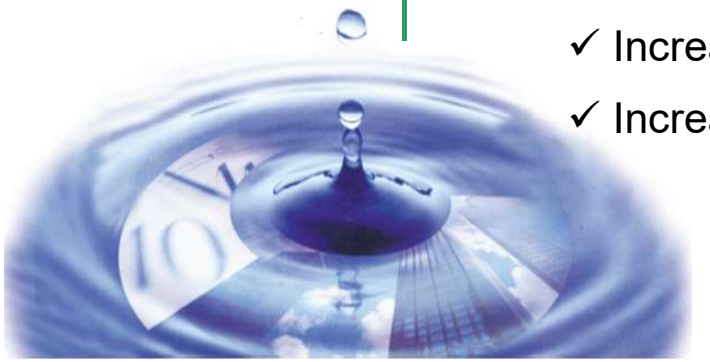
Increase the fiber surface area and fabric volume of spunlaced wipes when replacing some portion of the viscose or PET.

PP fibers have the lowest specific gravity among synthetic fibers. Which means to be produced more light-weight wipes. With SW-1001, you will make bulker and thicker wipes than conventional wipes.

※ specific gravity : PP(0.91), Rayon(1.52), PET(1.38)

If we compare the spunlaced wipes which were made by each 2.2 denier fiber ;

- ✓ Increase the fiber surface area : about 20% (vs. PET)
- ✓ Increase the fabric volume : 52% (vs. PET), 67% (vs. Viscose)



Features & Benefits of SW-1001

3. Fewer breakages and less linting properties

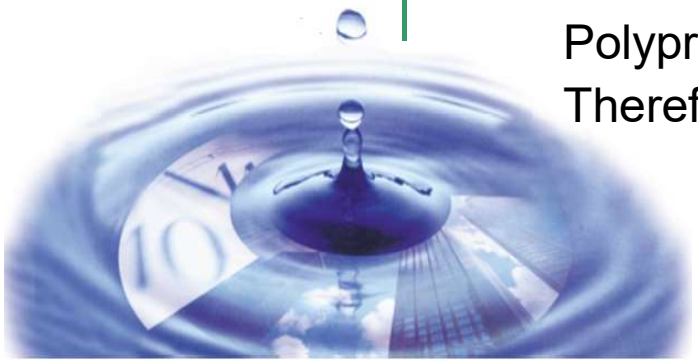
The spunlace end products made with SW-1001 have the higher tenacity, better elongation compared with the traditional products.

Therefore, they will give fewer breakages and less linting. that can possible to improve wiping and cleaning performance.

4. Excellent Chemical Resistance

The SW-1001 has excellent resistance to solvents, acids, alkalis and composition of wipe liquids (such as water, moisturizing lotion and detergents etc.).

Polypropylene fibers consist of carbon and hydrogen (C_3H_6). Therefore they are safe plus they keep long-term stability.



Features & Benefits of SW-1001

5. Advanced softness and more whiteness

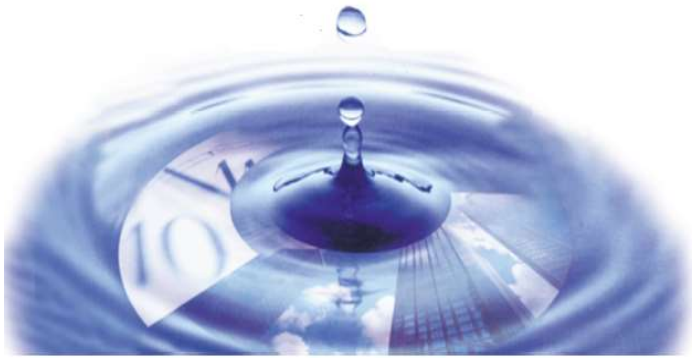
The softning agent and whitening agent elevate wipes's character.

6. High wet & dry strength of fabrics

7. No foaming properties in the spunlace process

Properties of SW-1001

Nonwoven Process	Denier (De')	Tenacity (g/De')	Elongation (%)	Crimp (ea/cm)	Total Finish (%)	Length (mm)	Remark
Spunlace Needle-punch	**1.5** ±0.2	3.4 ±0.2	160 ±40	7.5 ±1.0	0.25 ±0.05	40 / 51	Foamless Hydrophilic
	2.0 ±0.2	3.0 ±0.2	210 ±40	7.0 ±1.0	0.25 ±0.05	40 / 51	



Spunlace nonwoven Properties

Classification		SW-1001 + Viscose (40% : 60%)	PET + Viscose (40% : 60%)	Viscose (100%)	Remarks
Dry Strength, N/5㎝	MD	116	101	89	
	CD	28	30	18	
Wet Strength, N/5㎝	MD	96	86	65	
	CD	22	25	11	
Elongation, %	MD	42	36	33	
	CD	140	115	95	
Absorptive capacity, % (Wipe liquids)		1037	970	920	Surface tension of Wipe liquids : 30mN/m
Absorptive capacity, % (Water)		1082	1025	966	Internal KAF Test Base on EDANA ERT 10.4-02

※ The above properties are examples of spunlace trials conducted at the Fleissner AQUAJET Pilot System.
All spunlace nonwovens are 58gsm and were produced at same production conditions.