

# SAATI

75 years  
of  
future

NEW MATERIAL

MAR – Moisture Absorbent Resistant

# Saati - Who we are

**Saati** is a Italian multi-national textile and chemical manufacturer that produces products for the screen printing, filtration, ballistic protection, and advanced composites industries.



Founded 1935 in Appiano  
Gentile, Italy weaving silk mesh  
parachutes for Italian Army

2010 – Celebrate 75 years of  
precision weaving!

# Current Applications

## A fully integrated organization

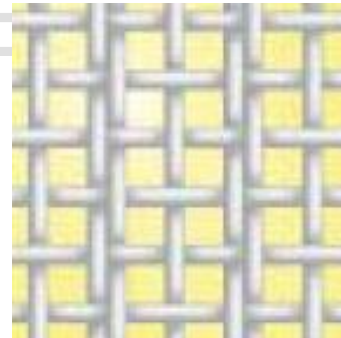
- Medical
- Automotive
- Appliance
- Electronics
- Industrial and Food Processing
- Water
- Screen Printing
- Chemicals
- Ballistic Materials



# NEW MATERIAL

## MAR™ – Moisture Absorbent Resistant

- FDA approved polymer
- Complex finishing/weaving techniques
- Resistant to humidity changes
- Maintains Tension
- Melamine Free

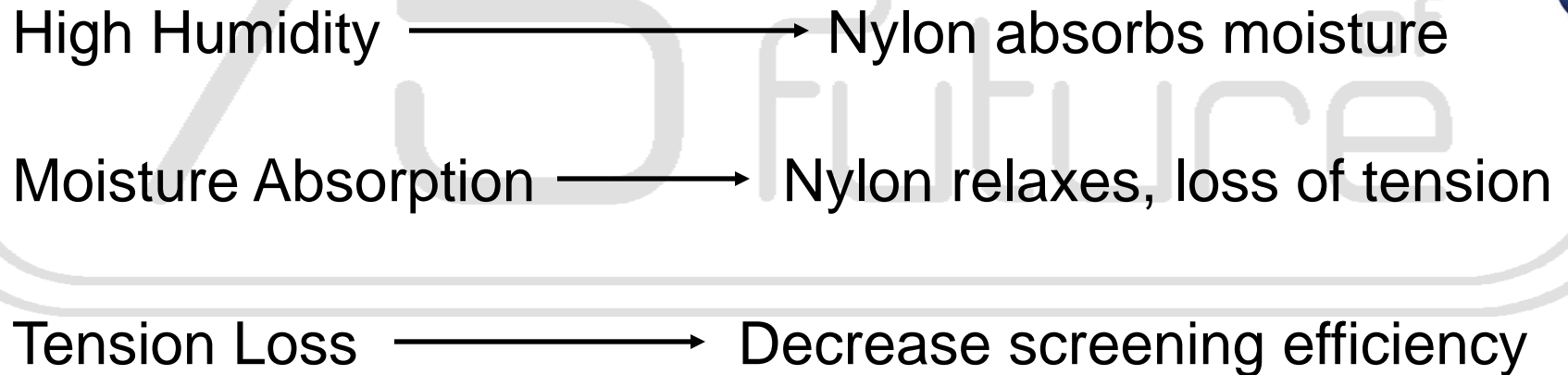


# CURRENT PROBLEM

## TENSION LOSS MILLING CLOTH



### NYLON MATERIALS – Standard Milling Cloth

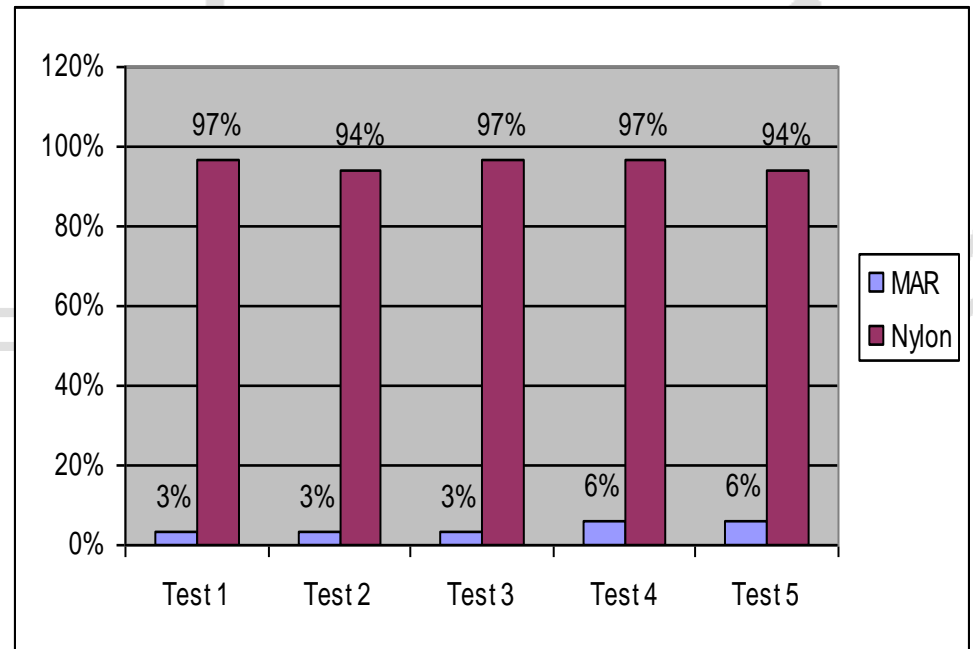


# Test Data – Moisture Absorption

## Test Parameters

- ✦ 1 oz each MAR™ and Nylon Material
- ✦ Introduce 4ml water to material
- ✦ Measure water not absorbed
- ✦ MAR™ average 4.2%
- ✦ Nylon average 95.8%

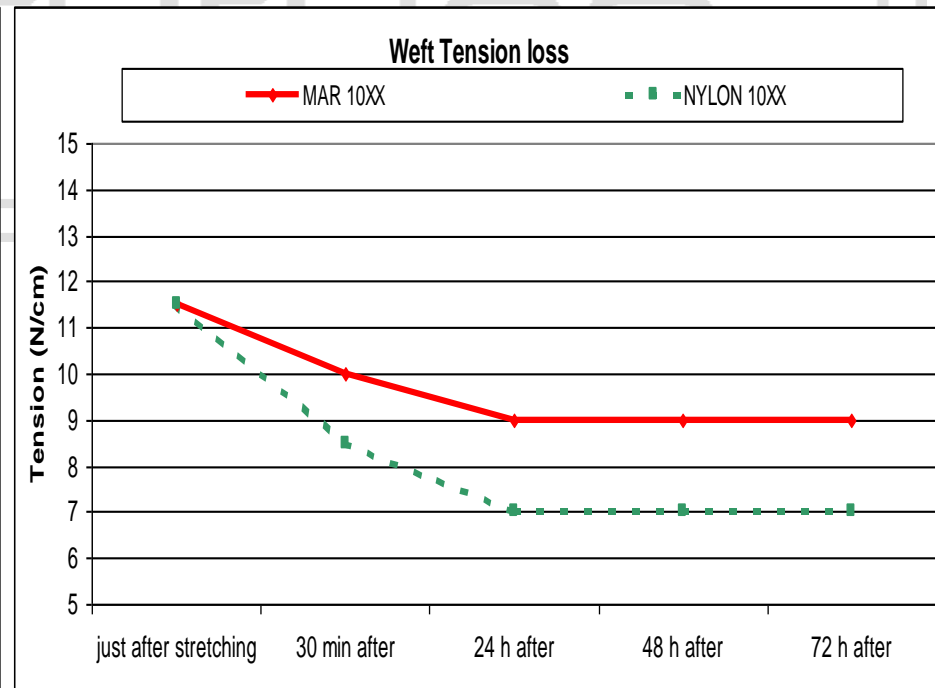
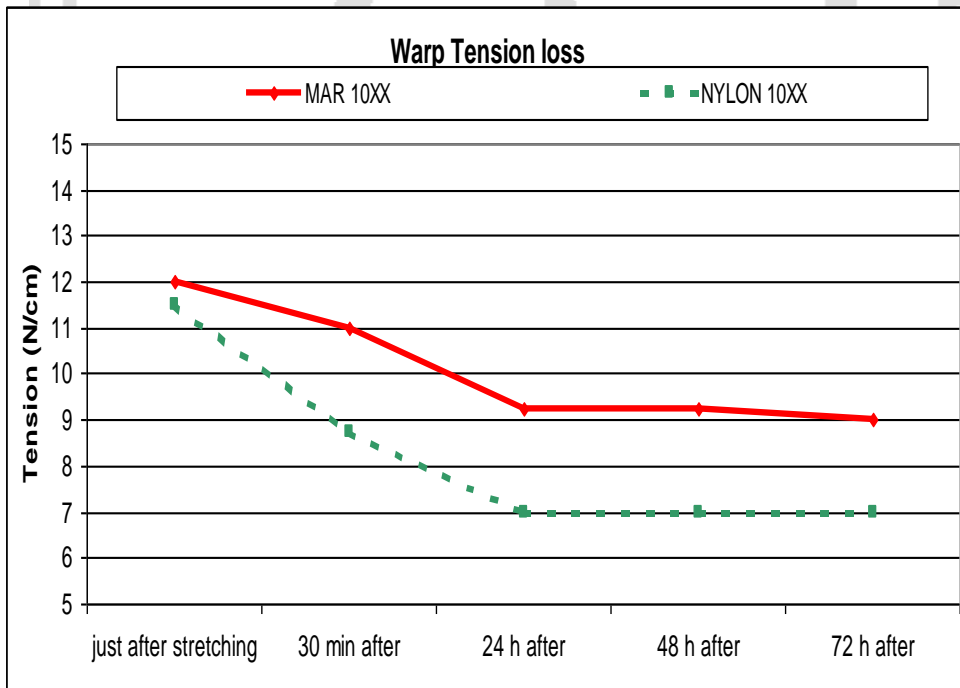
	Test 1	Test 2	Test 3	Test 4	Test 5
MAR	0.125	0.125	0.25	0.125	0.25
Nylon	3.875	3.75	3.875	3.875	3.75



# Test Data – Tension Loss

## R&D Facility Appiano Italy

Tension [N/cm]	MAR 10XX		NYLON 10XX	
	warp	weft	warp	weft
just after stretching	12	11.5	11.5	11.5
fabric glued on the frame				
30 min after	11	10	8.75	8.5
24 h after	9.25	9	7	7
48 h after	9.25	9	7	7
72 h after	9	9	7	7
Tension loss [N/cm] 72 h after panel preparation	3	2.5	4.5	4.5



# Test data – Tension

As reacting to humidity in application

**FLOUR MILL PLANT #1 Hard  
Wheat Section 1<sup>st</sup> Midds B Stock**

Compare MAR 9HT to 9MF

Cut Cloth on Aluminum Stretch and Glue frames

MAR 9 HT

DATE	HUMDITY LEVEL	SCREEN TENSION
INSTALLED	25%	11.5 n/cm
02/05/09	12%	11 n/cm
02/11/09	18%	11 n/cm
03/09/09	20%	11 n/cm

NYLON 9 MF

DATE	HUMDITY LEVEL	SCREEN TENSION
INSTALLED	25%	11 n/cm
02/05/09	12%	6 n/cm
02/11/09	18%	8 n/cm
03/09/09	20%	6.5 n/cm



# Test data – Tension

As reacting to humidity in application

**FLOUR MILL PLANT #2 - Swing Mill**

**Section 1GR2 TFL – 1<sup>st</sup> Grader Top Flour**

Compare MAR 9HT to 9MF

Cut Cloth on Wooden Stretch and Glue frames

# Abrasion Resistance - Martindale

**Method:** UNI ISO 1297 – 2/2000

Textiles – Determination of the abrasion resistance of fabrics by the Martindale method – Determination of specimen breakdown

**Instrument:** Abrasion Tester Martindale J. Heal – 103

**Applied Load:** 12kPa

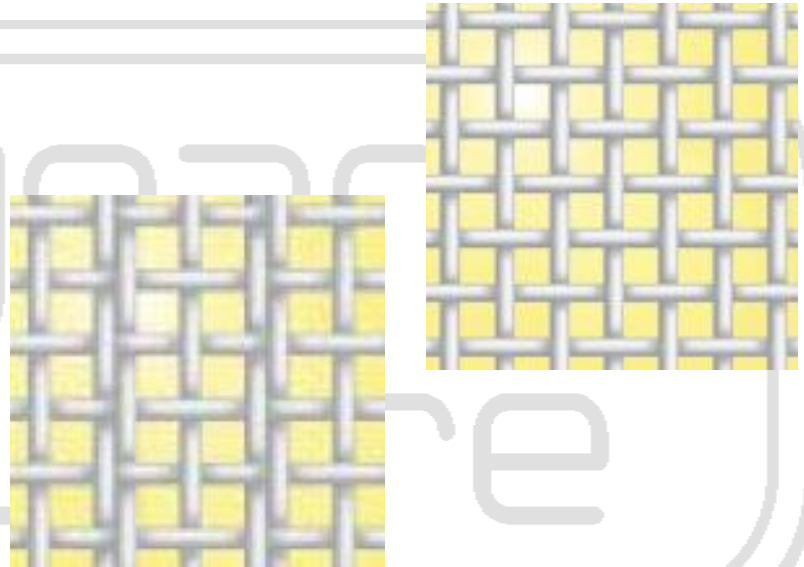
**Specimen Breakdown:** In woven fabrics breakdown point is when two threads are completely broken

Fabric	Specimen	Cycles (*) to end point	Change in color to end point
BLM 10 XX - 100% MAR	1	198000	4-5
	2	198000	
	3	>200000	
	4	>200000	
BLM 10 XX - 100% Polyamide	1	>200000	4-5
	2	>200000	
	3	>200000	
	4	>200000	

(\* ) cycle --> one forward and back movement of the abradant holder on a Martindale tester

# MAR™ – Moisture Absorbent Resistant

- ✦ Humidity Resistant
- ✦ Maintains Tension
- ✦ Consistent Throughput
- ✦ Increased Efficiency
- ✦ Melamine Free
- ✦ MAR HT Specifications Available Now
- ✦ MAR 10XX Available Now - All other XX specs complete by year end 2009



# Additional SaatiTech Milling Products

- ✂ Milling Cloth
- ✂ MBX Frame Surface Cleaner
- ✂ Polyurethane Turbo Screens (MKZDs)
- ✂ Purifiers Brushes
- ✂ Balls, Cubes, Pan Cleaners
- ✂ Adhesive, Activator, Remover
- ✂ Stretching Equipment

# *Questions?*

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