



MECONDOR

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ISO 9001 – 2008 and ISO14001 CERTIFIED

—Mecondor – who we are

Mecondor is the world-wide leader in the manufacture of woven and non woven multitube bags (gauntlets) retaining active material for tubular positive plates of industrial lead-acid batteries. With three plants (2 in Italy and 1 in Belgium), Mecondor has been making gauntlets for more than 40 years and has a world market share of over 70%, as priority gauntlets supplier to the major battery industries. A leader in innovation, Mecondor introduced in 2007 the latest generation of non woven gauntlets and, in co-operation with some major customers, has developed new products for Gel, AGM and Stop-Start batteries.

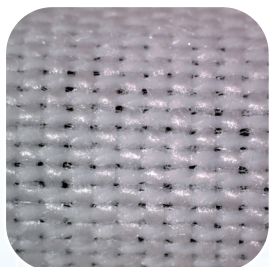
—Products

Mecondor is your long-standing partner for all tubular bags and gauntlets. Whether woven or non-woven bags, we are your associate for positive plates. The lead-acid technology is more than ever effective not only because of its low price and perfect recyclability but especially due to its reliability and longevity: up to 20 years in stationary applications.

DIN and BS tubular plates (PzS, OPzS, PzV ou OPzV) made with multitubular woven or non-woven gauntlets from Mecondor are your guarantor for this longevity; 1500 cycles and more are not exceptional.



■ WOVEN Gauntlets



Mecondor woven gauntlets are manufactured from high quality polyester yarn. An impregnation with a synthetic resin allows the plate to withstand the difficult and high oxidative conditions in the battery. During a thermal process the tubes obtain the desired shape, the stiffness and the gauntlet acquires its excellent physical properties.

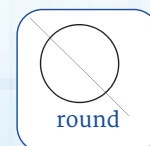
Even if the cheaper non-woven gauntlet is gaining importance some typical applications still require a woven gauntlet. Woven gauntlets are recommended when the battery has to work under severe conditions, when a high number of cycles and a high compacting pressure is required.



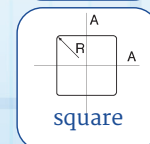
Typical Applications

- Stationary applications
- Gel type batteries
- Special applications like train lighting
- Batteries for the navy (sub-marines)
- Traction under extreme conditions
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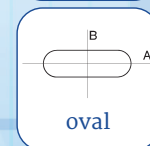
Different version available, changing type of yarns, threads numbers lengthwise and crosswise. Standard types are AP402 – AP407 – AP410; other on request.



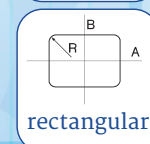
round



square



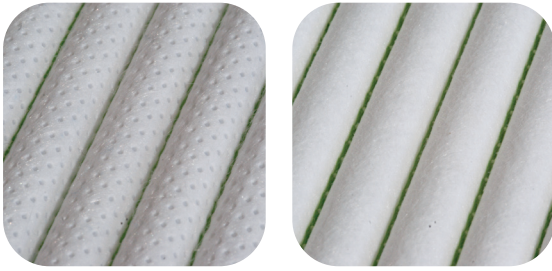
oval



rectangular

Tube shapes
other on request

■ NON-WOVEN Gauntlets



Two layers of a 100% polyester non-woven are sewed together. To obtain the required stiffness and resistance against oxidation, this non-woven material is also impregnated with a synthetic resin. The following heating process gives the shape and the stiffness to the non-woven gauntlet.

The very high filtering ability guarantees a low shedding of the active mass. Due to its low electrical resistance combined with a lower cost these gauntlets have become very attractive especially for traction batteries and some stationary applications.

Typical Applications

- Traction (PzS und PzV)
- Stationary (OPzS und OPzV)

NEWEST GENERATION OF NON WOVEN GAUNTLETS

MECONDOR, the leading manufacturer of Woven and Non-Woven gauntlets is proud to introduce a new generation of Non-Woven gauntlets.

NWS – Made with the spunlace technology

Thanks to its production process, its patented design offers the best features for gauntlets used for positive plates in traction, stand-by and gel batteries.

Polyester fibres entangled by thousands of very thin water jets provide a uniform non-woven structure, while impregnation with acrylic resin assures stiffness and oxidation resistance.

Two basic versions are available (Other / more on request):

- **NWS2- standard**
- **NWS4- reinforced : increased resin content**

The new NWS gauntlets provide:

- Best uniformity, without welding points, resulting in the lowest electrical resistance available on NW gauntlets, hence improved battery capacity (+3 to 5%)
- Extremely even and fine porosity, making it the ideal solution for all filling systems: High filtration capacity facilitates wet filling, smooth wall surface for easier (dry) filling with oxide.
- Reduced shedding during battery life.
- Very high homogeneity.
- Excellent uniformity in weight and thickness of the positive plates.
- 100% out of line impregnation for a better control of resin content. Possibility of customised versions
- Excellent acid absorption capacity.

Additional features of the reinforced NWS4 version are:

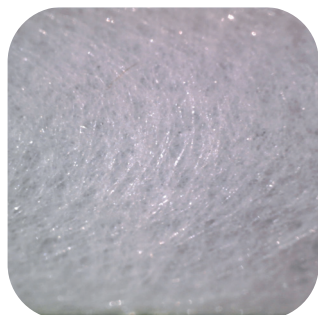
- Excellent oxidation resistance thanks to its high resin content however maintaining a very low electrical resistance. (important for heavy duty application like mining)
- Unmatched stiffness for a perfect performance during vibrated dry filling.
- Top of the range rigidity for easy handling.

The NWS gauntlet has been introduced more than seven years ago and is now widely used by a great number of battery manufacturer.

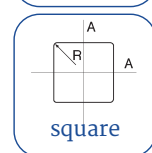
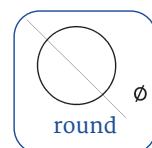
All this is possible thanks to the producing process of the NWS spunlace material, with giving the raw material a very high homogeneity and a very uniform pore size as shown on the following picture:



NW
spunbound technologie



NWS
spunlace technologie



Tube shapes
other on request

MAIN TECHNICAL CHARACTERISTICS COMPARISON:

	NON-WOVEN NW	NON-WOVEN NWS2	NON-WOVEN NWS4
MATERIAL	standard		
	Spunbound technology	Spunlace technology	Spunlace technology
Fibres	100% polyester	100% polyester	100% polyester
Surface	point bonded	flat, no welding points	flat, no welding points
PROPERTIES			
Electrical resistance typical value	<0,13 $\Omega \cdot \text{cm}^2$	<0,10 $\Omega \cdot \text{cm}^2$	<0,15 $\Omega \cdot \text{cm}^2$
Stiffness (rigidity) %	100	130	190
Weight loss after oxidation in H_2SO_4 , d=1,3 +30g $\text{K}_2\text{Cr}_2\text{O}_7/\text{l}$ 7days at 70°C	<2%	<2%	<1%



T - The standard width is 2.5 mm but it can be reduced to 1.8 mm.



ISM T - In order to avoid lateral short circuits, the two last half tubes are arecoated with a hot melt. Like this, the last half tubes are completely sealed.



O - No lateral finish



ISM O - No lateral finish but the two last half tubes are completely sealed.

