

Roll covers for paper industry



ABOUT US

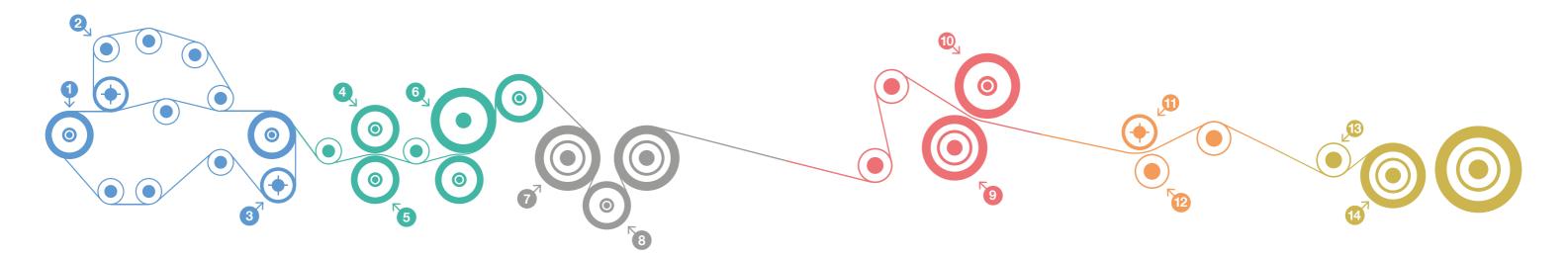
Tecno Caucho Rolls & Covers is the Spanish company with the largest production capabilities for rolls and sleeves, covered with **rubber**, **polyurethane**, **composites**, **HVOF** thermal spraying and **plasma** spraying APS.

Nowadays, our eagerness to constantly improve stand out us through our **strong R&D investment**, which is why our rolls, presses and technical component offer encompasses all the industrial materials. That gives us the ability to be able to offer **high efficiency and high-quality solutions** to improve the productivity and functioning of the machinery and manufacturing processes of our customers.



FIND COVERS FOR EVERY POSITION





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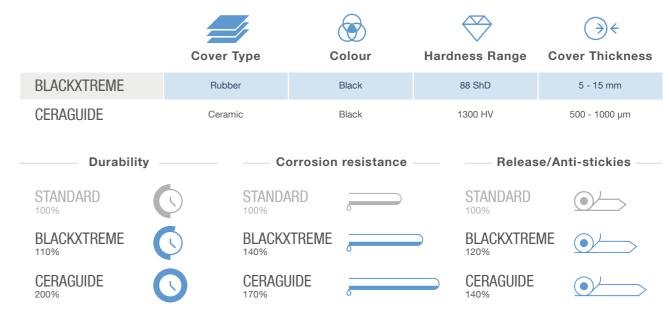
1 Former roll

Former rolls are responsible for collecting the pulp to start the manufacturing process. They are constantly in contact with aqueous solutions, so it is important that they have the capacity to resist corrosion and its effects for a long period of time. In addition, these solutions are usually partly composed of some chemical agents that can increase the corrosive effect on the cover and must be considered if the durability of the covers wants to be maximized.

				€			
	Cover Type	Colour	Hardness Range	Cover Thickness			
BLACKXTREME	Rubber	Black	88 ShD	5 - 15 mm			
NANOROCK	Composite	Blue	90 ShD	10 -15 mm			
	Ourability		Corrosion resistance				
	0 0		TANDARD -				
STANDARD BLA	CKXTREME NANOROO		ACKXTREME				
			ANOROCK				

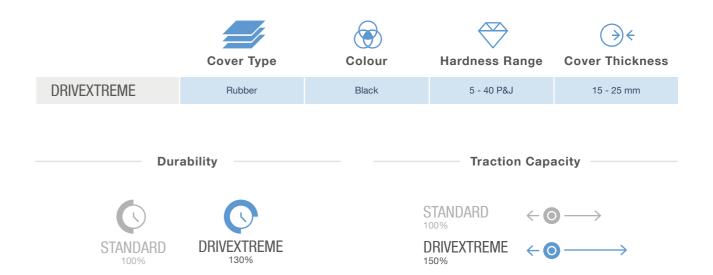
2 Guide roll

Guide rolls have the function of directing the paper line between the different sections of the manufacturing process. They must provide stability to the process to avoid at all costs any alteration in the direction of the paper line. Anti-corrosion properties are also important as at this point the pulp still lacks consistency as it is still soaked, so it is necessary to have qualities in the covers of these rolls that prevent the formation of stickies on the paper line, as well as dirt and other external agents.

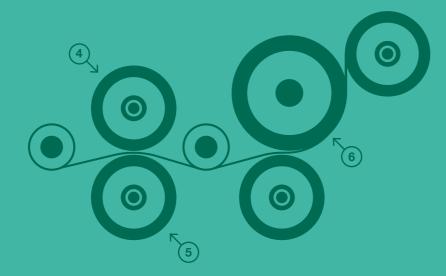


3 Drive roll

Drive rolls are those that drive the movement of the production line and set the speed of the paper line. Their most outstanding characteristic is the traction capacity that their covers must have to be able to withstand such an effort.



PRESS



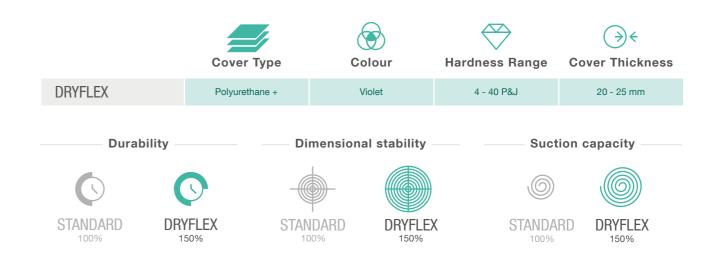
4 General

The main function of the presses is to give the paper greater consistency by means of pressure. For this purpose, it is very important that the covers used maintain constant dimensional stability along the entire surface of the roll, in order to press the paper uniformly along the entire paper line. Other factors are also important, such as the load capacity that the cover can withstand, as this will allow us to exert greater pressure and speed up the process, or the advantage that certain covers have in their composition as they do not need constant refrigeration for their correct operation.

			<i>I</i>					€
		Cover	Туре	Colour		Hardness Ran	ge Co	ver Thickness
MAXILOAD HLP * Special feature: High		Special C	ompound	Brown		10 - 40 P&J		15 - 25 mm
TECTHANE * Special feature: Non cooling		Polyure	ethane	Yellow 4 - 40 P&J			17 - 25 mm	
Durability						Dimensiona	al stabilit	у —
			0		-@	-		
STANDARD I	MAXILO 120		TECTHANI	E	STANI 100	DARD MAXILOA		TECTHANE

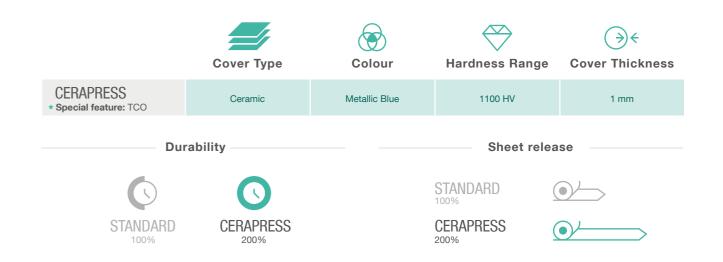
5 Suction press

Suction presses in concrete are intended to absorb water from the paper line during pressing, so their covers have a drilled or grooved finish that greatly influences their suction capacity, among other factors. The dimensional stability of the roll cover is also important to suck water evenly throughout the paper line and thus avoid areas with higher humidity.



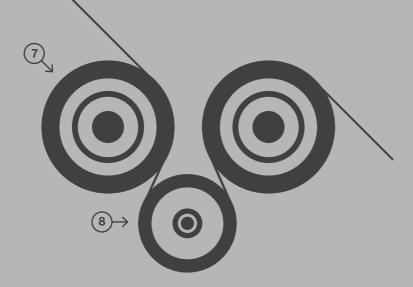
6 Central press

The central press is the position that has the most contact with the paper line during the entire pressing process. Therefore, its covers must have very good properties to provide a totally clean release of the sheet; as there is still moisture in the paper during this process, some of the material may become detached and stick to the roll if the appropriate cover is not used.



 $oldsymbol{8}$

DRYING



7 Dryer roll

Dryer rolls must remove practically all the water remaining on the paper, and for this purpose the most obvious characteristic that the covers of these rolls must have is a good heat transfer. The release of the sheet is also very important since this drying point is vital to prevent the material from sticking to the roll, which is avoided by using a suitable cover, as well as preventing the generation of irregularities in the paper line due to the excessive accumulation of material at a specific point forming stickies.

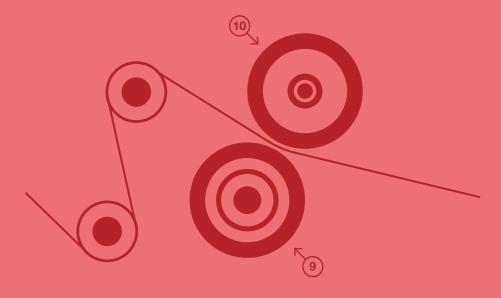
	Co	over Type	Colour	Hard	ness Range	→ ← Cover Thickness
SUPERTEM	Chro	mium Carbide	Metallic	1000 HV		100 - 500 μm
DURATECH * Special feature: Special top coat	Chror	nium Carbide +	Metallic	775 HV		100 - 500 μm
	- Durability				Sheet relea	se
	()	0				• • • • • • • • • • • • • • • • • • •
STANDARD 100%	SUPERTEM 130%	DURATEC 150%	H S	STANDARD 100%	SUPERTEM 130%	DURATECH 150%
	Heat transfe	r ———			Anti-stickie	es ———
STANDARD	SUPERTEM	_}}}}}	_	STANDARD	SUPERTEM	DURATECH
100%	120%	120%	II (100%	120%	150%

8 Guide roll

Guide rolls do not as such emit heat to dry the paper, but they participate in the process by maintaining the temperature and through their constant friction with the paper line, so their covers must also have good sheet release properties and prevent the formation of stickies.

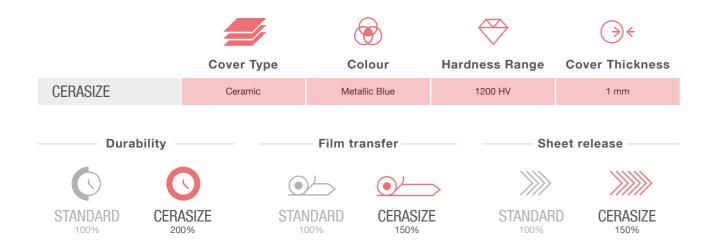
	Cover Type	Colour	Hardness Range	⇔ ← Cover Thickness
CROMOTECH	Chromium Carbide	Metallic	800 HV	100 - 500 μm
NOSTICK H * Special feature: Special top coat	Chromium Carbide +	Metallic	800 HV	100 - 500 μm
Durability		Sheet release	An	ti-stickies
STANDARD 100%	STAN 100%	IDARD	STANI 100%	DARD
CROMOTECH	CRON 130%	MOTECH •	CROM 120%	OTECH
NOSTICK H	NOS7	TICK H	> NOSTI	CK H

COATING & SIZER



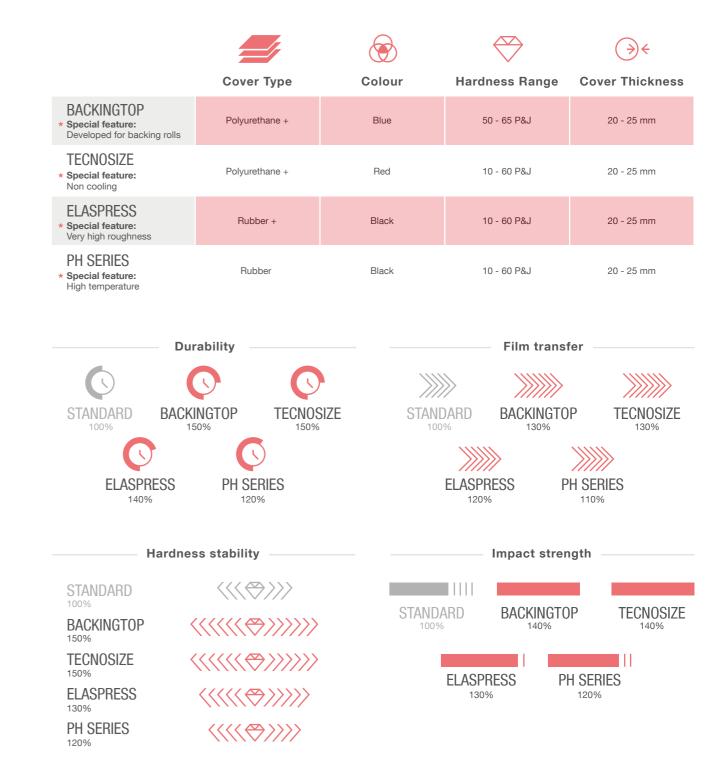
9 Hard coater press

The function of this roll position is to press the coating with the additives against the paper line, thus ensuring that the paper absorbs all its properties adequately. For this reason, the covers used must be of very high hardness, as well as offering good sheet release and film transfer.

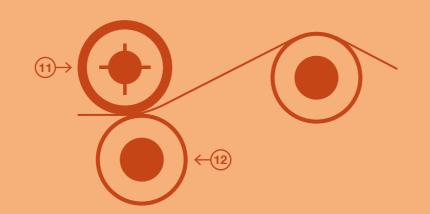


10 Soft coater press

The applicator rolls oversee distributing coatings with certain additives throughout the paper line that will modify the properties of the paper, increasing its quality. The covers used in this position must offer good hardness stability over the entire surface, as well as good film transfer and good resistance to possible impacts that may occur during this process.



CALENDERING





11 Hard calender

This is the hardest roll position typically used in the calendering process to apply the desired caliper and finish to the paper. The covers used must withstand high loads and very high temperatures and provide the paper with smoothness and gloss.

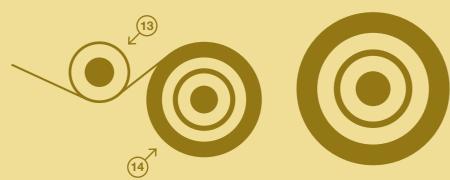
		O aver Tura			Ward race	Danas	⇒ ←	
TECHICIARD		Cover Type	Colour		Hardness		Cover Thickn	
TECNOHARD		Tungsten Carbide	Metallic		1300 H [\]	V	100 - 250 μm	
TECNOPRESS		Tungsten Carbide	Metallic		1450 HV		100 - 250 μm	
Durab	ility —		High smoothn	ess —		— High	temperature -	
STANDARD 100%		STAND 100%	ARD 2	XX	STAI	NDARD		
TECNOHARD	O	TECNO 130%	HARD 🙏	* * *	* TECI	NOHARD		
TECNOPRESS	0	TECNO 130%	PRESS	* * *	* TECI	NOPRESS	S	
——— High g	loss —		— High load					
STANDARD	\diamondsuit	STAND	ARD					
TECNOHARD	♦	TECNO 120%	HARD	T				
TECNOPRESS		TECNO	PRESS					

12 Soft calender

This position, although very similar in terms of functions to the previous one, has the particularity of presenting lower levels of hardness in its covers, even though these are high in comparison with other materials. In this way, they act as a safety measure, withstanding the high temperatures of the process and being able to yield slightly to high-pressure loads to preserve the integrity of the paper, giving it smoothness and gloss.

	Cover Type	Colour	Hardness Range	→ ← Cover Thickness
NANOTEC	Composite	Blue	88 - 93 ShD	12 - 16 mm
NANOTEC HT	Composite HT	Silver	88 - 93 ShD	12 - 16 mm
NANOTEC HG	Composite HG	Blue	88 - 93 ShD	12 - 16 mm
———— Durability —		High smoothness —	—— High	temperature ——
STANDARD 000%	STANDA 100%	ARD 2 X X X	STANDARD	
NANOTEC 120%	NANOTE 130%	EC ZYKKY	NANOTEC 120%	
NANOTEC HT		ECHT Z		T C
NANOTEC HG	NANOTE 140%	EC HG	NANOTEC H	G
———— High gloss —		— High load ——		
STANDARD	STANDA 100%	ARD		
NANOTEC 120%	NANOTI 120%	יוי		
NANOTEC HT	NANOT	EC HT		
NANOTEC HG	NANOT			

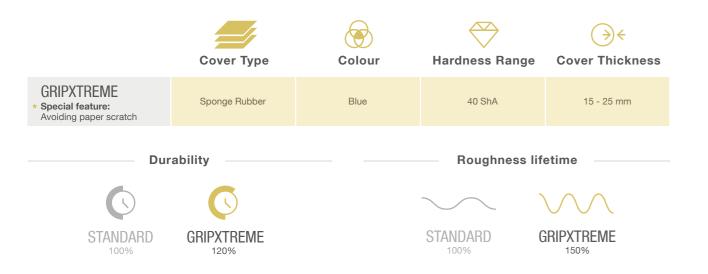
WINDING & REELING



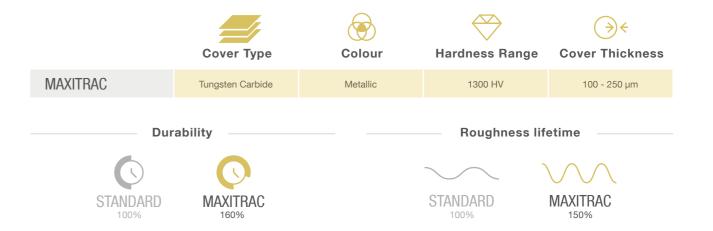
13 Reel drum

Reel drumm rolls are responsible for collecting the paper once the manufacturing process has been completed and supplying it correctly to the reel spool to form a reel of paper. For this purpose, they must have a certain roughness in their covers that allows the paper to be gripped well, avoiding possible breaks in the paper line. They must also offer good resistance to wear.

13.a Paper reel drum



13.b Board reel drum



14 Reel spool

These rolls are the ones on which the paper reel is generated once the process is finished, transferring the paper and avoiding the formation of bubbles. Their covers must offer good dimensional stability and be cut-resistant.



WHY CHOOSE US?

At Tecno Caucho Rolls & Covers we offer a **complete and safe service** thanks to our extensive **knowledge of the sector**. We **manage the complete process** by taking care of the transport, covering, finishing and maintenance services required for each roll.

In addition, our **60 years of experience** allow us to provide **specific advice for each roll** in order to **solve problems** and avoid possible future inconveniences in the durability and rolls operation.

Thanks to this, we offer **customized solutions** for each roll that allow us to **decrease TCO**, **avoiding unexpected shutdowns** and assuring **quality and fast delivery times**.

RANGE OF SERVICES

Roll covering

- ·Rubber.
- ·Polyurethane.
- ·Composites.
- ·HVOF thermal spraying.
- ·Plasma thermal spraying (APS).

Surface finishing

- ·Turning.
- ·Drilling.
- ·Grooving.
- ·Super Finish.
- ·3D Grinding.
- ·Laser Engraving.

Construction of complete rolls

Maintenance

·Roll repair.

·Recharging and adjustment of shafts.

·Non-destructive testing with magnetic particles, dye penetrant liquids, ultrasound and thermography.

·Maintenance of suction presses.

·Maintenance of Crown Control Rolls (CCR).

- ·Dynamic balancing.
- ·Vibration analysis.

Advicing and optimization

·Press sections.

- ·Calender and multicalender.
- ·Troubleshooting and production efficiency.





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