

SAFETY GENERAL RULES

THE BRAZILIAN NBR 15637 STANDARD COMPLIANT

SELECTION AND CORRECT USE OF SLINGS

In the specification of slings, the required maximum workload must be considered, considering the way of use (vertical, basket, choke) and the kind of load to be lifted. In the NBR 15637 (Brazilian Standard) it is mandatory to put an identification label showing at least the following information:

- Raw material
- Length
- Manufacturer's identification, with Corporate Taxpayer ID (CNPJ)
- Traceability code that allows to identify the production history
- Sling model
- CMT and CMTE (for all the ways of use)
- Date of manufacture
- Part number related to the batch
- Standard number
- Safety factor

INFORMATION ON SLING INSPECTION

During the period of use, controls must be regularly be carried out to check for defects or damages that may affect the safe use of the sling. These inspections must also be carried out on all the fittings and equipment used with the sling. Before each and every use we strongly recommend:

- Check availability of the inspection procedure;
- Inspect the sling for defects;
- Dispose defective slings making sure they will not be used again;
- Check the existence and readability of the label;
- Make sure of the correct sling specification for the load to be lifted was selected.

Never use an unidentified sling (without the traceability blue label), which must be forwarded to a qualified person in charge for inspection. Contaminated slings must be removed immediately, washed in cold water with neutral soap or detergent, air dried and sent to a qualified person in charge for inspection.

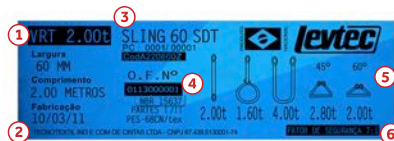
INFORMATION ON SAFETY AND SLING USAGE

- More than two pairs of eyelets cannot be used in the same hook;
- The sling can never be twisted or have knots. Slings cannot be directly patched with other slings;
- Safety must be provided for the staff during the lifting. People circulating in the danger area must be alerted about the operation and, if necessary, evacuated from the area immediately;
- Hands and other body parts must be kept away from the sling, to avoid injuries;
- In long runs, a non-metallic guide must be used, measuring preferably more than 4,5 m;
- It's not advisable to pull the sling under the load, when it is lying onto it;
- After completing the operation of load lifting, the sling must go back to its appropriate storage. When not in use, the slings must be preferably stored in clean, room temperature places.

***IMPORTANT:** For more information, please check the "Inspection and Lifting Guide for Cargo Lifting and Movement and Lifting Dossier", which can be found in the Tecnotextil website:

www.tecnotextil.com.br

UNDERSTAND THE TRACEABILITY LABEL



- 1.WORKLOAD IN THE VERTICAL POSITION
- 2.RESPONSIBILITY/SLING MANUFACTURER
- 3.SLING MODEL
- 4.TRACEABILITY CODE
- 5.WORKLOAD IN DIFFERENT FORMS
- 6.SAFETY FACTOR



SAFE LOAD LIFTING WITH POLYESTER LEVTEC SLINGS

SAFETY AND
QUALITY
ASSURED



LOAD CAPACITIES - FS 7:1											
Usage illustration	1 SLING						2 SLINGS				
	Vertical	Chocked	Basket		Circular simple		Direct		Chocked		
Angle of inclination β	0	0	Parallel $\beta < 7^\circ$	$7 \leq \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$	$7 \leq \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$	$7 \leq \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$	$7 \leq \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$
Usage factor	1,0	0,8	2,0	1,4	1,0	0,7	0,5	1,4	1,0	1,12	0,8
Purple	1.000	800	2.000	1.400	1.000	700	500	1.400	1.000	1.120	800
Green	2.000	1.600	4.000	2.800	2.000	1.400	1.000	2.800	2.000	2.240	1.600
Yellow	3.000	2.400	6.000	4.200	3.000	2.100	1.500	4.200	3.000	3.360	2.400
Gray	4.000	3.200	8.000	5.600	4.000	2.800	2.000	5.600	4.000	4.480	3.200
Red	5.000	4.000	10.000	7.000	5.000	3.500	2.500	7.000	5.000	5.600	4.000
Brown	6.000	4.800	12.000	8.400	6.000	4.200	3.000	8.400	6.000	6.720	4.800
Blue	8.000	6.400	16.000	11.200	8.000	5.600	4.000	11.200	8.000	8.960	6.400
Orange	10.000	8.000	20.000	14.000	10.000	7.000	5.000	14.000	10.000	11.200	8.000
Orange	12.000	9.600	24.000	16.800	12.000	8.400	6.000	16.800	12.000	13.440	9.600
Orange	15.000	12.000	30.000	21.000	15.000	10.500	7.500	21.000	15.000	16.800	12.000
Orange	20.000	16.000	40.000	28.000	20.000	14.000	10.000	28.000	20.000	22.400	16.000
Orange	25.000	20.000	50.000	35.000	25.000	17.500	12.500	35.000	25.000	28.000	20.000
Orange	30.000	24.000	60.000	42.000	30.000	21.000	15.000	42.000	30.000	33.600	24.000
Orange	40.000	32.000	80.000	56.000	40.000	28.000	20.000	56.000	40.000	44.800	32.000
Orange	50.000	40.000	100.000	70.000	50.000	35.000	25.000	70.000	50.000	56.000	40.000
Orange	60.000	48.000	120.000	84.000	60.000	42.000	30.000	84.000	60.000	67.200	48.000
Orange	80.000	64.000	160.000	112.000	80.000	56.000	40.000	112.000	80.000	89.600	64.000
Orange	100.000	80.000	200.000	140.000	100.000	70.000	50.000	140.000	100.000	112.000	80.000

LOAD CAPACITIES - FS 4:1					
Assembling	1 LEG	2 LEGS		3 AND 4 LEGS	
Usage illustration					
Angle of inclination β	0	$0 < \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$	$0 < \beta \leq 45^\circ$	$45^\circ < \beta \leq 60^\circ$
Usage factor	1,0	1,4	1,0	2,1	1,5
Purple	1.000	1.400	1.000	2.100	1.500
Green	2.000	2.800	2.000	4.200	3.000
Yellow	3.000	4.200	3.000	6.300	4.500
Gray	4.000	5.600	4.000	8.400	5.700
Red	5.000	7.000	5.000	10.500	7.500
Brown	6.000	8.000	6.000	12.600	9.000
Blue	8.000	11.200	8.000	16.800	12.000
Orange	10.000	14.000	10.000	21.000	15.000
Orange	12.000	16.800	12.000	25.200	18.000
Orange	15.000	21.000	15.000	31.500	22.500
Orange	20.000	28.000	20.000	42.000	30.000
Orange	25.000	35.000	25.000	52.500	37.500
Orange	30.000	42.000	30.000	63.000	45.000

For more information, check our website:

www.tecnotextil.com.br

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INSPECTION AND HANDLING TIPS

BASIC GUIDE FOR ROUTINE INSPECTION

- Put the Levtec sling on a plain surface;
- Carefully check both sides;
- Carefully check the eyes;
- Carefully check the protections and the fittings (metal hardware).

PLAIN LEVTEC SLING WORN OUT DUE TO ABRASION

Even if the external threads are not broken, they can reach a point of wear that decreases the sling's safety coefficient, making its use dangerous.

LONGITUDINAL/CROSS CUTS

The longitudinal cut generally occurs when the Levtec sling is used in contact with a non-planar loading area. The cross cut normally occurs when the Levtec sling undergoes an unbalanced tension or gets in contact with sharp or abrasive edges. In both cases, the Levtec sling must be removed (collected and disposed, cut in various smaller pieces so as to make sure it won't be used).

CRACKING OF THE SURFACE

Under regular use, cracks can appear on the surface fibers. That is normal and its effect is minor. Nevertheless, the effects might vary and, as the process continues, some loss of the workload capacity can be expected. Any substantial crack will have to be examined critically. The local abrasion (differently from the one resulting from general use) may be provoked by sharp edges while the Levtec sling is under tension, which can result into significant loss of mechanical resistance.

CUTS

They can be cross or longitudinal cuts, causing damages to the eyes on the sling.

CHEMICAL ATTACK

It happens in weakening or material smoothing areas and it is evidenced by "scaling" of the surface, which may appear loose or worn out.

DAMAGE BY HEATING OR FRICTION

This is shown by the fibers that appear to be "smooth and shiny" and, in extreme cases, melting of the fibers may occur.



PROTECTION FOR ABRASIVE OR SHARP EDGES

