

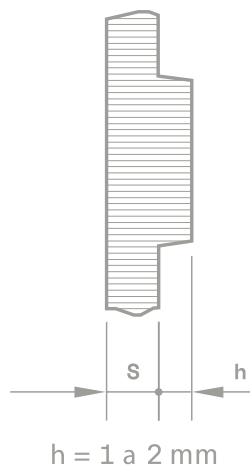
# HOT ROLLED EMBOSSED (BLACK) STRIPS/ SHEETS

**EN 10363**

This product presents anti-slip properties and is particularly used in the construction of floors that require more friction, namely in walkways, platforms, stairs and access ramps.

These features are also shown by their physical embossment, in tear or diamond patterns, being effective both on drier floors and on adverse floors, such as those with water or oil.

Its surface offers excellent resistance to abrasion and impact wear, in extreme situations, such as when subjected to the constant passage of vehicles. It is also in high demand by designers for decorative use.



# DIMENSIONAL PROPERTIES

## Thickness tolerances

Nominal thickness (mm)	Limit deviations (mm)	Allowable thickness variations (mm)
3	+ 0,8	0,8
4	- 0,4	0,8
5	+ 1,1	0,9
6	- 0,4	0,9

## Flatness tolerances

Length (mm)	Higher allowable limit (mm)	
<b>S</b>	1000	2000
3	9	14
4	9	14
5	8	12

## Length tolerances

Length (mm)	Higher allowable limit (mm)
< 4000	20
> 4000 < 6000	30
> 6000 < 8000	40
> 8000 < 10000	50
> 10000 < 15000	75

# TABLE OF DIMENSIONS

Thickness (mm)	Width (mm)								
	1000			1250			1500		
	Sheets (kg)	Units p/ Bundle	Bundle (kg)	Sheets (kg)	Units p/ Bundle	Bundle (kg)	Sheets (kg)	Units p/ Bundle	Bundle (kg)
3,0 / 5,0	53	52	2756	84,5	32	2704	124,3	22	2735
4,0 / 6,0	67,3	42	2827	104,3	26	2712	151	18	2718
5,0 / 7,0	86,2	32	2758	129,5	22	2849	203	14	2842
Length ref. (mm)	2000			2500			3000		

# STEEL GRADES

Steel Grade	Chemical properties								Mechanical properties								
	Nominal thicknesses < 16mm % by mass								R <sub>eh</sub> mín. Thickness (mm)	R <sub>m</sub> Thickness (mm)	L <sub>0</sub> = 80mm Thickness (mm)				L <sub>0</sub> = 5,65 Thickness (mm)		
	C % máx.	Si % máx.	Mn % máx.	P % máx.	S % máx.	N % máx.	Cu % máx.	CEV % máx.	≤ 16	< 3	≥ 3 ≤ 100	≤ 1	> 1 ≤ 1,5	> 1,5 ≤ 2	> 2 ≤ 2,5	> 2,5 ≤ 3	> 3 ≤ 40
S235JR	0,19	-	1,50	0,045	0,045	0,014	0,60	0,35	235	360 a 510	360 a 510	17	18	19	20	21	26
S275JR	0,24	-	1,60	0,045	0,045	0,014	0,60	0,40	275	430 a 580	410 a 560	15	16	17	18	19	23

Steel Grade	Chemical properties				Mechanical properties							
	Nominal thicknesses % by mass				R <sub>el</sub> (MPa) máx.	R <sub>m</sub> (MPa) máx.	L <sub>0</sub> = 80mm Thickness (mm)				L <sub>0</sub> = 5,65 vS <sub>0</sub>	
	C % máx.	Mn % máx.	P % máx.	S % máx.	1 ≤ 2	2 ≤ 11	1 < 1,5		1,5 < 2	2 < 3	3 ≤ 11	
DD11	0,12	0,60	0,045	0,045	170-360	170-340	440	22	23	24	28	

# SUPPLY CONDITIONS

## PACKAGING

The material is available in strips/coils, strapped with bands of steel and, in the case of shaped sheets, in bundles wrapped in protective film. To facilitate the handling of bundles (loading/unloading), they are supported by wooden beams.

## LABELING

Each strip/coil/bundle is supplied with a label, ensuring proper identification of the product and its traceability.

## CERTIFICATE

Each order will be accompanied by the corresponding inspection certificate according to EN 10204, in accordance with the product's applicable standard.

# SUPPLY OPTIONS

## SPECIAL TOLERANCES

THICKNESS, LENGTH AND WIDTH:

This product is supplied with thickness, width, and length tolerances (in the case of shaped sheets) in accordance with the applicable standard. Special tolerances may be available upon request. Edge trimming possible.

STEEL GRADES:

The possibility of supplying other steel grades not mentioned above can be evaluated upon request.

## COATINGS AND SURFACE TREATMENTS

The products are supplied in accordance with the applicable standards, with the possibility of additional treatments/coatings as previously requested at the time of the inquiry/order, under the customer's responsibility.

## LABORATORY TESTS

Possibility of requesting specific laboratory tests, not foreseen in the applicable standard (anisotropy, salt fog, metallography, thickness elongation, among others)

## WRAPPING AND PACKAGING

The strips/coils/bundles can be configured according to the client's specifications, as requested at the time of the inquiry/order. Possibility of using packaging with anticorrosion protection (VCI).

# ÁREAS DE APLICAÇÃO



INDUSTRY



CONSTRUCTION