



**Corus Packaging Plus**

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## **Product Range & Technical Specifications**

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**Serving your business**

# Your success

## Serving your business

**Corus Packaging Plus is a leading manufacturer of high quality packaging steels, supplying to the can making industry worldwide. CPP offers a wide product range, including tinplate, ECCS and Protact® polymer-coated steel. Working with customers, the company focuses on products and services that improve can making efficiency, can performance and offers supply chain solutions that optimise the business of its customers.**

At Corus Packaging Plus, you will find assistance at every turn. Our customer support teams can answer all your commercial and logistical queries. Working in partnership, our technical experts harness their knowledge for your gain, to improve can-making efficiency to world class performance benchmarks.

Our innovation experts develop new grades for the future, support your applications and help grow the market for packaging steel. Through our Centre for Packaging Technology, we can call upon the best research, development and technical resources in the steelmaking world.

In this brochure we provide technical information about the Corus Packaging Plus product range and technical specifications. More detailed information about specific products is also available.

To find out more about how we can serve your business, please visit [www.coruspackaging.com](http://www.coruspackaging.com) or contact us on +31 (0)251 49 31 86.



## Standards

### Tinplate and ECCS/TFS

### Black plate

Euronorm 10202

Euronorm 10205

ASTM 623 (on request)

Corus Packaging Plus is ISO 9001 certified.

## Mechanical properties standard grades

Euronorm Designation	Batch Annealed or Continuous Annealed	Yield / Proof Strength (MPa)*	Tensile Strength (MPa)*
TS230	BA	230 ± 50	325 ± 50
TS245	BA	245 ± 50	340 ± 50
TS260	BA	260 ± 50	360 ± 50
TS275	BA	275 ± 50	375 ± 50
TS290	BA	290 ± 50	390 ± 50
TS345	BA	345 ± 50	400 ± 50
TS520	BA	520 ± 50	535 ± 50
TS550	BA	550 ± 50	575 ± 50
TH415	CA	415 ± 50	435 ± 50
TH435	CA	435 ± 50	460 ± 50
TH520	CA	520 ± 50	540 ± 50
TH550	CA	550 ± 50	570 ± 50
TH580	CA	580 ± 50	590 ± 50
TH620	CA	620 ± 50	625 ± 50

\* Mechanical properties of CA (Continuous Annealed) grades in aged condition.

## Mechanical properties special grades

### DWI grades

Tinplate for Drawn and Wall Ironed (DWI) applications has specific properties. Corus Packaging Plus offers Boron alloyed extra low carbon, continuous annealed products to ensure excellent formability and highly efficient processing. These steel grades have been designed to combine formability requirements of can making with the strength requirements of the final pack. Core applications: beer & beverage, food.

### Mechanical properties DWI grades

Euronorm / CPP Designation	Annealing	Yield / Proof Strength (MPa)*	Tensile Strength (MPa)*
TH340	CA	340 ± 40	360 ± 40
TH380	CA	380 ± 40	400 ± 40
TH415	CA	415 ± 40	435 ± 40

\* Mechanical properties of CA (Continuous Annealed) grades in aged condition.

## High ductility grades

These highly ductile steels are excellent for drawing and stretching applications because of their unique mechanical properties: low strength, high total elongation, higher R-value and higher n-value (strain hardening level).

Typical applications: bakeware and shaped aerosols.

### Mechanical properties High ductility grades

CPP designation	Annealing	Yield strength (MPa)	Tensile strength (MPa)
TS200	BA	200 ± 40	320 ± 40
TS250	BA	250 ± 40	325 ± 40
TS300	BA	300 ± 40	325 ± 40

## Easy-open end grades

Steel for Easy-open ends requires high strength to withstand the retorting process. Additionally the ends need to be easy to open. Finally the steel must be ductile enough for seaming and rivet forming operations. Corus Packaging Plus offers a range of nitrogenised steel based products that deliver these mechanical properties.

### Mechanical properties: Easy-open end grades

CPP designation	Annealing	Yield Strength (MPa)*	Tensile Strength (MPa)*
TH460 Nitrogenised	CA	460 ± 40	490 ± 40
TH550 Nitrogenised	CA	550 ± 40	555 ± 40
TH580 Nitrogenised	CA	580 ± 40	585 ± 40
TH620 Nitrogenised	CA	620 ± 40	625 ± 40

\* Mechanical properties of CA (Continuous Annealed) grades in aged condition.

## Other grades

On request Corus Packaging Plus supplies other packaging steels with special properties like minimum earing and deep drawing properties.

## Tin Coating Mass

In compliance with the Euronorm Electrolytic Tinplate is offered with either an equal or differential coating in the range of 1 to 14 g/m<sup>2</sup>. In accordance with EN10202 Corus Packaging Plus supplies marker lines for differential coatings.

Passivation	Type	Min (mg/m <sup>2</sup> per side)	Max (mg/m <sup>2</sup> per side)
Standard cathodic passivation (Sodium Dichromate)	311	3,5	9,0
Single chemical dip (Sodium Dichromate Dip)	300	1,0	3,0

K-plate on request.

## Coating Mass for ECCS

	Min (mg/m <sup>2</sup> per side)	Max (mg/m <sup>2</sup> per side)
Total Chromium	50	140
Chromium in Oxide	7	35

Other coating masses on request.

## Oil

After passivation, mill coated products are coated equally on both surfaces with a uniform film of oil which is in accordance with relevant national or international standards for food contact packaging. Corus Packaging Plus complies with 1935/2004/EC and 2023/2006/EC and uses DOS oil as standard oil. Other oils on request.

## Surface finish

Product finish	Tinplate	ECCS	Flow melted tinplate	Nominal surface roughness (µm Ra)
Mirror finish	yes	-	yes	< 0.25
Bright	yes	-	yes	≤ 0.35
Fine stone	yes	yes	yes	0.25 - 0.45
Stone	yes	yes	yes	0.35 - 0.60
Heavy stone	yes	yes	yes	0.50 - 0.70
Silver/Matt	yes	-	yes/no	0.80 - 2.50

Other specifications on request.

## Dimensions

Product	Coils / Sheets*		Sheets*
	Thickness	Width	Cut length
Single Reduced (SR)	0.17 - 0.49 mm	600 - 1200 mm	470 - 1180 mm (width max. 1018 mm)
Double Reduced (DR)	0.13 - 0.26 mm	600 - 1200 mm	470 - 1100 mm (width max. 1018 mm)
Wide ECCS and DWI	-	Up to 1219 mm	-
Width tolerance	Standard trim	(- 0.00, + 3.00 mm)	
	Special trim	(- 0.00, +1.00 mm)	
	Super trim	(- 0.25, + 0.00 mm)	

\* Other dimensions upon request.

\* Minimum and maximum dimensions are indicated. Restrictions in the combination of thickness and width may be applicable.

## Inside Core Diameter

Standard: 420 mm. Other diameters on request.

## Further processing

On request CPP can supply scroll cut sheets, slit or lacquered material.

## Protact®

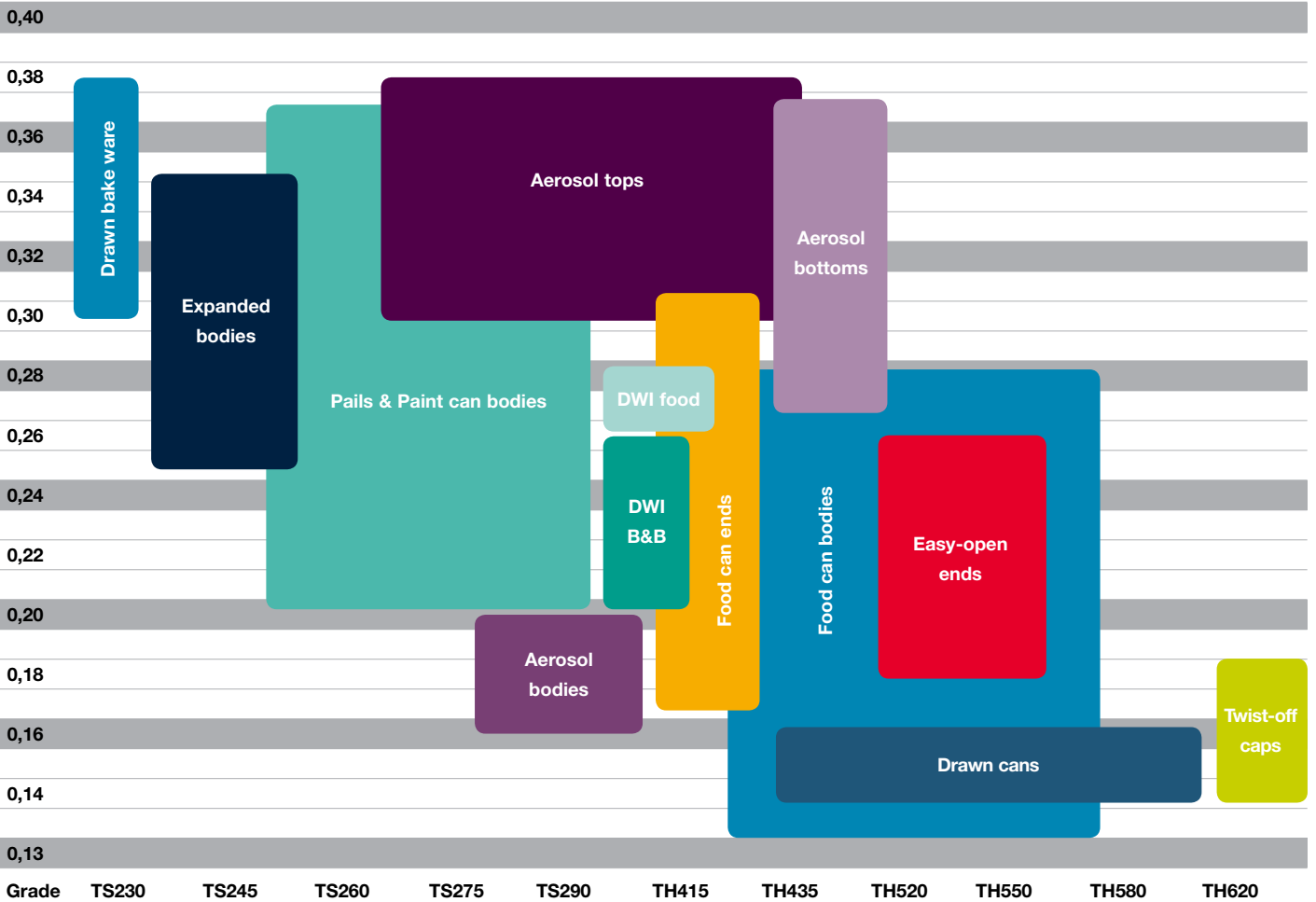
Protact® (polymer-coated steel) is a packaging material that combines the performance of packaging steel and the versatility of polymer coatings. Due to this coating Protact is the high performance packaging steel for a wide range of applications like paint cans, food cans, aerosols and rings for peel-off ends. Protact delivers a wide range of fillings safely and securely. For further information see our Protact® brochure range.





**General specification window for packaging applications**

Thickness (mm)



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