

## **Required documents in the Quarto Plate Cartel**

As of September 23, 2021

Latest version available in German at: <https://www.quartoblechkartell.de/datendokumentation>  
and in English available at: <https://www.quartoblechkartell.de/documentation>

### I. Evidence of purchases

Please provide the following evidence in the form of a digital copy or a paper receipt for each direct or indirect<sup>1</sup> purchase of affected quarto plates (*see Appendix A: Affected quarto plates*) by a buyer registered in Germany or from a seller<sup>2</sup> registered in Germany during the period from July 01, 2002 to June 30, 2016:

1. Proof of purchase in the form of an order confirmation, invoice or delivery note,

which contains at least the following mandatory information:

- a. Date of the order (alternatively: date of delivery, invoice, or payment); and
- b. Product name; and
- c. Name of the seller; and
- d. Name of the buyer; and
- e. Turnover or quantity (e.g., in weight, number of pieces); and
- f. Dimensions (height, width and length).

which contains the following optional information:

- g. Manufacturer; or
- h. Steel type or grade (material description or number); or
- i. Norm; or
- j. Unit price; or
- k. Product characteristics; or
- l. Surcharges, such as
  - i. Dimension surcharges; or
  - ii. Surcharges for ultrasonic tests; or

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<sup>1</sup> Indirect purchases include the purchase of affected plates from steel traders or pre-processing companies, which in turn have purchased the plates themselves directly or indirectly from the cartel participants.

<sup>2</sup> Only purchases for which the price formation took place in Germany can be taken into consideration.

- iii. Surcharges for improved deformation properties perpendicular to the surface of the product; or
    - iv. Surcharges/ discounts for low quantities; or
    - v. Alloy surcharges/ discounts; or
    - vi. Scrap price surcharges/ discounts; or
    - vii. Surcharges for inspection or acceptance certificates; or
    - viii. Surcharges for special tests; or
    - ix. Surcharges for steel shot blasting and priming; or
    - x. Other surcharges/ discounts/ freight surcharges; or
  - m. Terms of delivery; or
  - n. Terms of payment; or
  - o. Discount agreements.
2. If available: Contracts; such as master agreements or binding price lists with the sellers with evidence of the following optional information:
- a. Quantity or sales targets; or
  - b. Delivery terms; or
  - c. Terms of payment; or
  - d. Discount agreements.
3. If available: Technical documentation, such as certificates of inspection<sup>3</sup> or test certificates (*see Appendix B: Technical Documentation*) with evidence of the following information:
- a. Manufacturer; or
  - b. Date (manufacturing, inspection or document issue); or
  - c. Steel type, grade or alloy (material description or number); or
  - d. Product inspections (ultrasonic testing, special tests); or
  - e. Improved deformation properties perpendicular to the surface of the product; or
  - f. Steel shot blasting and priming.
4. If available, or, mandatory<sup>4</sup> for insolvent companies: Accounting or transfer documents that serve as proof of payment.

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<sup>3</sup> In particular, certificates of inspection in accordance with DIN-EN 10204, e.g., factory certificate by the manufacturer, certificate of work by the manufacturer, inspection certificate 3.1 by the manufacturer and inspection certificate 3.2 by an inspection representative appointed by the purchaser.

<sup>4</sup> A proof of payment is mandatory for insolvent companies for purchases occurring within the 24 months before the official start of the insolvency proceedings.

## II. Estimation of damage

In addition to evidence of the purchase of cartel affected products, further data and documents should be collected for a conclusive damage estimation:

1. Evidence of purchases as in I.1 and technical documentation as in I.3 for the period between July 01, 2016 and December 31, 2019; and
2. If available: Manufacturers' product information in the form of product sheets, catalogue price lists, technical summaries, product presentations or similar documents.

## III. Data sources

The following data and document sources regularly proved useful for obtaining the above-mentioned evidence:

1. ERP systems and archives:
  - a. Accounting data; or
  - b. Goods receipt data; or
  - c. Production data; or
  - d. Sales data.
2. Documents used for managerial accounting (e.g., internal controlling and pricing).
3. Documents of the following operational departments:
  - a. Procurement and controlling; or
  - b. Sales (e.g., handover certificates); or
  - c. Quality management; or
  - d. Production and Engineering.
4. Partially: External accounting information such as annual reports for companies with a homogeneous product portfolio (such as specialised pipe manufacturers)<sup>5</sup>. Under certain conditions, aggregated information from the monthly accounting (BWA in Germany) can be used as evidence.

## IV. Data upload

After compiling the data and documents, they can be sent to Litigation Financing & Capital using the following secure data upload tool.

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<sup>5</sup> The use of data and documents pertaining to the external accounting must be agreed with Litigation Financing & Capital in each individual case.

Important: It is mandatory that you attach an explanation of the volume and content of the data as a separate document.

Please submit the verification documents, data and the explanation together in a ZIP file and upload it via the following link:

<https://pro.teambeam.de/quartoblechkartell>

After receiving the data package, Litigation Financing & Capital will review and evaluate the submitted data and return an assessment to you with any queries or additional data requests.

If you have any questions regarding the data collection and transmission, please contact Litigation Financing & Capital directly.

## Appendix A: Affected quarto plates

In its case report, the Federal Cartel Office (the Bundeskartellamt) states that the quarto plate cartel (Case No. B 12-25/16) affected the main quality surcharges for quarto plates.

Quarto plates belong to the heavy plates and are hot-rolled steel flat products that are produced on so-called quarto frames or four-roll frames.

Quarto plates are used in particular in the areas of steel and bridge construction, building construction (DIN-EN 10025), shipbuilding, boilers and pressure vessels (DIN-EN 10028), wind turbine and offshore construction, as well as general mechanical engineering.

A selection of frequently used quarto plates affected by the cartel with a description and material numbers can be found in the following tables with a **blue** header (Table 1 to Table 13).

A selection of commonly used steels that are probably not affected by the cartel can be found in the tables with a **red** header (Table 14 to Table 19).

If you have purchased steel types that are not listed in the tables and you are not sure if they are affected by the cartel, please contact Litigation Financing & Capital directly.

### **Digression: Material numbers for steels**

Acquisition documents and inspection certificates can also indicate the material numbers that uniquely identify the steel type, in addition to the steel type.

These material numbers have the following structure:

**1.0035**

- **1. Digit** Main material group: 1 = Steel
- **2./3. Digit** Type number: 00-99 (e.g., Structural steel = 00 - 07 or 90-97)
- **4./5. Digit** Counting number

The following tables also list the corresponding material numbers to ease identification, if available.

**a. Construction steels**

<b>Construction steels (DIN-EN 10025-2)</b>		
<b>Type of material</b>		<b>Material-No.</b>
<b>New<sup>6</sup></b>	<b>Old<sup>7</sup></b>	
S185	St 33	1.0035
S235JR	RSt 37-2	1.0038
S235J0	St 37-3 U	1.0114
S235J2		1.0117
S275JR	St 44-2	1.0044
S275J0	St 44-3 U	1.0143
S275J2		1.0145
S355JR		1.0045
S355J0	St 52-3 U	1.0553
S355J2	St 52-3 N	1.0577
S355K2		1.0596
S450J0		1.0590
E295	St 50-2	1.0050
E355	St 60-2	1.0060
E360	St70-2	1.0070

**Table 1: Unalloyed construction steels according to DIN-EN 10025-2**

<sup>6</sup> Following DIN-EN 10027-1.

<sup>7</sup> Following DIN 17006.

Fine-grained structural steels - normalised rolled (DIN-EN 10025-3)			Fine-grain structural steels - thermomechanically rolled (DIN-EN-10025-4)		
Type of material		Material-No.	Type of material		Material-No.
New	Old		New	Old	
S275N	StE 285	1.0490	S275M		1.8818
S275NL	TStE 285	1.0491	S275ML		1.8819
S355N	StE 355	1.0545	S355M	StE 355 TM	1.8823 <sup>8</sup>
S355NL	TStE 355	1.0546	S355ML	TStE 355 TM	1.8834 <sup>9</sup>
S420N	StE 420	1.8902	S420M	StE 420 TM	1.8825
S420NL	TStE 420	1.8912	S420ML	TStE 420 TM	1.8836
S460N	StE 460	1.8901	S460M	StE 460 TM	1.8827 <sup>10</sup>
S460NL	TStE 460	1.8903	S460ML	TStE 460 TM	1.8838 <sup>11</sup>

Table 2: Unalloyed construction steels according to DIN-EN 10025-3 / -4

Weatherproof construction steels (DIN-EN 10025-5)	
Type of material	Material-No.
S235J0W	1.8958
S235J2W	1.8961
S355J0WP	1.8945
S355J2WP	1.8946
S355J0W	1.8959
S355J2G1W	1.8963
S355J2G2W	1.8965
S355K2G1W	1.8966
S355K2G2W	1.8967

Table 3: Weatherproof construction steels according to DIN-EN 10025-5

<sup>8</sup> Also marketed by Dillinger Hüttenwerke as DI-MC355B.

<sup>9</sup> Also marketed by Dillinger Hüttenwerke as DI-MC355T.

<sup>10</sup> Also marketed by Dillinger Hüttenwerke as DI-MC460B.

<sup>11</sup> Also marketed by Dillinger Hüttenwerke as DI-MC550.

Fine-grained structural steels (DIN-EN 10025-6)		Fine-grained structural steels (DIN-EN 10025-6) Continuation	
Type of material	Material-No.	Type of material	Material-No.
S460Q	1.8908	S690Q	1.8931
S460QL	1.8906	S690QL	1.8928
S460QL1	1.8916	S690QL1	1.8988
S500Q	1.8924	S890Q	1.8940
S500QL	1.8909	S890QL	1.8983
S500QL1	1.8984	S890QL1	1.8988
S550Q	1.8904	S960Q	1.8941
S550QL	1.8926	S960QL	1.8933
S550QL1	1.8986	S890QL1	1.8925
S620Q	1.8914	S559QL	1.8926
S620QL	1.8927	S559QL1	1.8986
S620QL1	1.8987		

Table 4: Structural steels with higher yield strengths according to DIN-EN 10025-6

**b. Pressure vessel steels**

Pressure vessel steels (DIN-EN 10207)	
Type of material	Material-No.
P235S	1.0112
P265S	1.0130
P275SL	1.1100

Table 5: Basic pressure vessel steels according to DIN-EN 10207



Fine-grained structural steels (DIN-EN 10028-2)		Fine-grained structural steels (DIN-EN 10028-2)	
Type of material	Material-No.	Type of material	Material-No.
P235GH	1.0345	P355N	1.0562
P265GH	1.0425	P275NH	1.0487
P295GH	1.0481	P355NH	1.0565
P355GH	1.0473	P460NH	1.8935
16Mo3	1.5415	P275NL1	1.0488
18MnMo4-5	1.5414	P355NL1	1.0566
13CrMo4-5	1.7335	P460NL1	1.8915
13CrMoSi5-5	1.7336	P275NL2	1.1104
10CrMo9-10	1.7380	P355NL2	1.116
12CrMo9-10	1.7375	P460NL2	1.8918
13CrMoV9-10	1.7703		
12CrMoV12-10	1.7767		
15NiCuMoNb5-6-4 373	1.6368		
20MnMoNi4-5	1.6311		

**Table 6: Fine-grained structural steels for pressure vessel construction according to DIN-EN 10028-2**

Cryogenic pressure vessel steels (DIN-EN 10028-4)		Cryogenic pressure vessel steels (no DIN-EN or ASTM-/ ASME Norm)	
Type of material	Material-No.	Type of material	Material-No.
11MnNi5-3	1.6212	NV 2-4	1.1108
13MnNi6-3	1.6217	NV 4-4	1.1109
12Ni14	1.5637	A/SA 285 Grade C	
X12Ni5 (12Ni19)	1.5680	A/SA 387-11 Class 2	
X8Ni9 <sup>12</sup>	1.5662	A/SA 387-12 Class 2	
X7Ni9	1.5663	A/SA 387-22 Class 2	
		A/SA 516 Grade 55	
		A/SA 516 Grade 60	
		A/SA 516 Grade 65	
		A/SA 516 Grade 70	
		A/SA 537 Class 1	
		A/SA 285 Grade C	

**Table 7: Cryogenic steels for pressure vessel steels according to DIN-EN 10028-4, ASTM-/ASME standard**

<sup>12</sup> Available in NT640, QT640 and QT680 versions.

Fine-grained structural steels (no DIN-EN Norm)		Fine-grained structural steels (NF A 36215)	
Type of material	Material-No.	Type of material	Material-No.
StE255	1.0461	P265NJ2	
StE315	1.0505	P265NJ4	
StE380	1.8900	P285NJ2	
StE420	1.8902	P345NJ2	
WStE255	1.0462	P345NGJ2	
WStE315	1.0506	P400GJ2	
WStE380	1.8930	P400GJ4	
WStE420	1.8932	P440NJ4	
TStE255	1.0463	P460NJ2	
TStE315	1.0508		
TStE380	1.8910		
TStE420	1.8912		
ESTe255	1.1103		
ESTe315	1.1105		
ESTe380	1.8911		
ESTe420	1.18913		

Table 8: Fine-grain structural steels without DIN-EN standardisation or NF A 36215

Cold forming steel (DIN-EN 10149-2)		Cold forming steel (DIN-EN 10149-3)	
Type of material	Material-No.	Type of material	Material-No.
S315MC	1.0972	S260NC	1.0971
S355MC	1.0976	S315NC	1.0973
S420MC	1.0980	S355NC	1.0977
S460MC	1.0982	S420NC	1.0981
S500MC	1.0984		
S550MC	1.0986		
S600MC	1.8969		
S650MC	1.8976		
S700MC	1.8974		
S900MC	1.8798		
S960MC	1.8799		

Table 9: Steels for cold forming according to DIN-EN 10149-2/-3

**c. Shipbuilding steels**

Shipbuilding steels of different norms								
Yield strength	General	Lloyd's Register of Shipping	Det Norsle Veritas	Germanischer Lloyd	Maritime Register of Shipping	American Bureau of Shipping	Bureau Veritas	Resgistro Italiano Navale
235	Grade A	LR A	NV A	GL-A	PC A	AB A	BV A	RINA A
	Grade B	LR B	NV B	GL-B	PC B	AB B	BV B	RINA B
	Grade D	LR D	NV D	GL-D	PC D	AB D	BV D	RINA D
	Grade E	LR E	NV E	GL-E	PC E	AB E	BV E	RINA E
315	AH 32	LR AH 32	NV A32	GL-A32	PC A32	AB AH32	BV AH32	RINA AH32
	DH 32	LR DH 32	NV D32	GL-D32	PC D32	AB DH32	BV DH32	RINA DH32
	EH 32	LR EH 32	NV E32	GL-E32	PC E32	AB EH32	BV EH32	RINA EH32
	FH 32	LR FH 32						
355	AH 36	LR AH 36	NV A36	GL-A36	PC A36	AB AH36	BV AH36	RINA AH 36
	DH 36	LR DH 36	NV D36	GL-D36	PC D36	AB DH36	BV DH36	RINA DH 36
	EH 36	LR EH 36	NVE36	GL-E36	PC E36	AB EH36	BV EH36	RINA EH 36
	FH 36	LR FH 36						
390	AH 40	LR AH40	NV A40	GL-A40	PC A40	AB AH40		
	DH 40	LR DH40	NV D40	GL-D40	PC D40	AB DH40		
	EH 40	LR EH40	NV E40	GL-E40	PC E40	AB EH40		

**Table 10: Shipbuilding steels**

**d. Steels for pipeline construction**

Water-bearing steel pipes (DIN-EN 10255 M/ H)		Water-bearing steel pipes (DIN-EN 10224)	
Type of material	Material-No.	Type of material	Material-No.
S 195 T	1.0026	L 235	1.0252
		L 275	1.0260
		L 355	1.0419

**Table 11: Steel for water-bearing pipes**

Pipes for constructions (DIN-EN 10210/ 10219)		Pipes for flammable liquids (DIN-EN 10208-1/ -2)		Pipes for flammable liquids (DIN-EN 10208-1/ -2) Continuation	
Type of material	Material-No.	Type of material	Material-No.	Type of material	Material-No.
S 235 JRH	1.0039	L 210 GA	1.0319	L 360 QB	1.8948
S 275 J2H	1.0138	L 235 GA	1.0458	L 415 QB	1.8947
S 275 J0H	1.0149	L 245 GA	1.0459	L 450 QB	1.8952
S 355 J2H	1.0576	L 290 GA	1.0483	L 485 QB	1.8955
S 355 J0H	1.0547	L 360 GA	1.0499	L 555 QB	1.8957
S 275 NH	1.0493	L 245 NB	1.0457		
S 275 NLH	1.0497	L 290 NB	1.0484		
S 355 NH	1.0539	L 360 NB	1.0582		
S 355 NLH	1.0549	L 415 NB	1.8972		
S 460 NH	1.8953	L 245 MB	1.0418		
S 460 NLH	1.8956	L 290 MB	1.4029		
S 275 MH	1.8843	L 360 MB	1.0578		
S 275 MLH	1.8844	L 415 MB	1.8973		
S 355 MH	1.8845	L 485 MB	1.8977		
S 355 MLH	1.8846	L 555 MB	1.8978		
S 420 MH	1.8847				
S 420 MLH	1.8848				
S 460 MH	1.8849				
S 460 MLH	1.8850				

Table 12: Steel for pipes according to DIN-EN 10210, 10219 and 10208-1/ -2

Seamless steel pipes for compressive loading (DIN-EN 10216-1)		Seamless steel pipes for compressive loading (DIN-EN 10216-2/ -3)	
Type of material	Material-No.	Type of material	Material-No.
P 195 TR 1	1.0107	P 195 GH	1.0346
P 195 TR2	1.0108	P 235 GH	1.0345
P 235 TR1	1.0254	P 265 GH	1.0425
P 235 TR2	1.0255	16 MO 3	1.5415
P 265 TR1	1.0258	13 CrMo 4-5	1.7335
P 265 TR2	1.0259	10 CrMo 9-10	1.7380
		P 355 N	1.0562

Table 13: Steel for pipes under compressive loading according to Din-EN 10216-1 /-2 /-3

The Federal Cartel Office also notes that the following quarto plates are not affected by the cartel:

**a. Rust-, acid-, and heat-resistant steels; and**

Rust-, acid-, and heat-resistant steels include the material numbers 1.40XX to 1.49XX. A selection of steels that are not affected by the cartel can be found in Table 1 and Table 2:

<b>Rust-resistant steels (DIN-EN 10088)</b>			
<b>Type of material</b>	<b>Material-No.</b>	<b>Type of material</b>	<b>Material-No.</b>
X6CrAl13	1.4002	X2CrNiN23-4	1.4362
X2CrNi12	1.4003	X5CrNiMo17-12-2	1.4401
X12Cr13	1.4006	X2CrNiMo17-12-2	1.4404
X6Cr17	1.4016	X2CrNiMoN25-7-4	1.4410
X6CrNi17-1	1.4017	X4CrNiMo16-5-1	1.4418
X20Cr13	1.4021	X2CrNiMoN17-13-3	1.4429
X30Cr13	1.4028	X2CrNiMo18-14-3	1.4435
X39Cr13	1.4031	X3CrNiMo17-13-3	1.4436
X46Cr13	1.4034	X2CrNiMoN17-13-5	1.4439
X17CrNi16-2	1.4057	X2CrNiMoN22-5-3	1.4462
X14CrMoS17	1.4104	X1CrNiMoN25-25-2	1.4465
X6CrMoS17	1.4105	X2CrNiMoCuWN25-7-4	1.4501
X55CrMo14	1.4110	X2CrTiNb18	1.4509
X90CrMoV18	1.4112	X3CrTi17	1.4510
X6CrMo17-1	1.4113	X3CrNb17	1.4511
X50CrMoV15	1.4116	X2CrTi12	1.4512
X20CrMo13	1.4120	X2CrTi17	1.4520
X39CrMo17-1	1.4122	X2CrMoTi18-2	1.4521
X105CrMo17	1.4125	X1NiCrMoCuN25-20-7	1.4529
X5CrNi18-10	1.4301	X1NiCrMoCuN25-20-5	1.4539
X4CrNi18-12	1.4303	X6CrNiTi18-10	1.4541
X8CrNiS18-9	1.4305	X5CrNiTi18-10	1.4541
X2CrNi19-11	1.4306	X6CrNiNb18-10	1.4550
X2CrNi18-9	1.4307	X1CrNiMoTi18-13-2	1.4561
X10CrNi18-8	1.4310	X2CrNiMnMoNbN25-18-5-4	1.4565
X2CrNiN18-10	1.4311	X6CrNiMoTi17-12-2	1.4571
X3CrNiMo13-4	1.4313	X5CrNiMoTi15-2	1.4589
X2CrNiN18-7	1.4318		

**Table 1: Rust-resistant steels according to DIN-EN 10088**

Heat-resistant steels (DIN-EN 10095)			
Type of material	Material-No.	Type of material	Material-No.
8SiTi4 / 8 SiTi 4	1.5310	X7CrNi23-14 / X 12 CrNi 24 12	1.4833
X10CrAl7 (X10CrAlSi7)	1.4713	X12CrNi25-21 / X 12 CrNi 25 21	1.4845
8CrSi7-7 / 8 CrSi 7 7	1.4700	X10NiCr32-20 / X 10 NiCr 32 20	1.4861
X10CrAl13 / X 10 CrAlSi 13	1.4724	X10NiCrAlTi32-20 / (Incoloy 800)	1.4876
X10CrSi6 / X 10 CrSi 6	1.4712	X12CrNiTi18-9 / X 10 CrNiTi 18 10	1.4878
X10CrSi13 / X 10 CrSi 13	1.4722	X12CrNiMoNb20-15	1.4885
X10CrSi18 / X 10 CrSi 18	1.4741	X15CrNiSi25-20 / X 15 CrNiSi 25 21	1.4841
X10CrAl18 / X10 CrAlSi 18	1.4742	X12NiCrSi36-16 / X 12 NiCrSi 35 16	1.4864
X10CrAl24 / X 10 CrAlSi 25	1.4762	X20CrNiSi25-4 / X 20CrNiSi 25 4	1.4821
X10CrAl7 (X10CrAlSi7)	1.4713	X12CrNi25-21 / X 12 CrNi 25 21	1.4845
X15CrNiSi20-12 / X 15 CrNiSi 20 12	1.4828		

**Table 2: Heat-resistant steels according to DIN-EN 10095**

**b. Tool steels and quenched and tempered steels; and**

Tool steels and quenched and tempered steels include the material numbers 1.20XX bis 1.28XX. Additional steel types, that belong to the tool as well as quenched and tempered steels, are listed in Tabelle 3:

<b>Quenched and tempered steels (DIN-EN 10083-2/ -3)</b>					
<b>Type of material</b>		<b>Material-No.</b>	<b>Type of material</b>		<b>Material-No.</b>
<b>New</b>	<b>Old</b>		<b>New</b>	<b>Old</b>	
C22E	Ck22	1.1151	46CrS2	46 CrS 2	1.7025
C22R	Cm22	1.1149	34Cr4	34 Cr 4	1.7033
C35E	Ck 35	1.1181	34CrS4	34 CrS 4	1.7037
C35R	Cm 35	1.1180	37Cr4	37 Cr 4	1.7034
C35	C 35	1.0501	37CrS4	37 CrS 4	1.7038
C40E	Ck 40	1.1186	41Cr4	41 Cr 4	1.7035
C40R	Cm 40	1.1189	41CrS4	41 CrS 4	1.7039
C40	C 40	1.0511	25CrMo4	25 CrMo 4	1.7218
C45E	Ck 45	1.1191	25CrMoS4	25 CrMoS 4	1.7213
C45R	Cm 45	1.1201	34CrMo4	34 CrMo 4	1.7220
C45	C 45	1.0503	34CrMoS4	34 CrMoS 4	1.7226
C50E	Ck 50	1.1206	42CrMo4	42 CrMo 4	1.7225
C50R	Cm 50	1.1241	42CrMoS4	42 CrMoS 4	1.7227
C55E	Ck 55	1.1203	50CrMo4	50 CrMo 4	1.7228
C55R	Cm 55	1.1209	34CrNiMo8	34 CrNiMo 8	1.6582
C55	C 55	1.0535	30CrNiMo8	30 CrNiMo 8	1.6580
C60E	Ck 60	1.1221	36CrNiMo16		1.6773
C60R	Cm 60	1.1223	39NiCrMo3		
C60	C 60	1.0601	30NiCrMo16-6		1.6747
28Mn6	28 Mn 6	1.1170	51CrV4	50 CrV 4	1.8159
38Cr2	38 Cr 2	1.7003	20MnB5		1.5530
38CrS2	38 CrS 2	1.7023	30MnB5		1.5531
46Cr2	46 Cr 2	1.7006			

**Tabelle 3: Quenched and tempered steels according to DIN-EN 10083-2/ -3**

The case-hardened steels in Table 4 and the nitrided steels in Tabelle 5 are most likely also not affected by the cartel:

<b>Case-hardened steels (DIN-EN 10084)</b>		
<b>Type of material</b>		<b>Material-No.</b>
<b>New</b>	<b>Old</b>	
C10E	Ck 10	1.1121
C10R		1.1207
C15E	Ck 15	1.1141
C15R	Cm 15	1.1140
C16E		1.1148
C16R		1.1208
16MnCr5	16 MnCr 5	1.7131
20MnCr5	20 MnCr 5	1.7147
18CrMo4		1.7243
22CrMoS3-5	22 CrMoS 3-5	1.7333
20MoCr3	20 MoCr 4	1.7320
20MoCr4		1.7321
16NiCr4		1.5714
10NiCr5-4		1.5805
18NiCr5-4		1.5810
17CrNi6-6		1.5918
15NiCr13		1.5752
20NiCrMo2-2	21 NiCrMo 2	1.6523
17NiCrMo6-4		1.6566
20NiCrMoS6-4		1.6571
18CrNiMo7-6	17 CrNiMo 6	1.6587
14NiCrMo13-4		1.6657

**Table 4: Case-hardened steels according to DIN-EN 10084<sup>13</sup>**

<sup>13</sup> Moreover, the boron alloyed quenched and tempered steels of the MnB-collection are most likely not affected by the cartel (for example, 10MnB5, 20MnB5, 22MnB5, 27MnCrB5-2, 30MnB5, 17MnB3, 8MnCrB3).



<b>Quenched, tempered and nitrided steels (DIN-EN 10085)</b>	
<b>Type of material</b>	<b>Material-No.</b>
32CrAlMo7-10	1.8505
31CrMoV9	1.8519
33CrMoV12-9	1.8522
34CrAlNi7-10	1.8550
41CrAlMo7-10	1.8509
40CrMoV13-9	1.8523
34CrAlMo5-10	1.8807

**Tabelle 5: Quenched and tempered steels according to DIN-EN 10085**

**c. Steels for offshore construction according to DIN-EN 10225; and**

According to the Federal Competition Office, steels used for offshore constructions according to DIN-EN 10225 have not been affected by the cartel. A selection of these steels is listed in Tabelle 6:

<b>Offshore steels according to DIN-EN 10025 (with certificate of inspection per DIN-EN 102014)</b>	
<b>Type of material</b>	<b>Material-No</b>
S355G1 (+N)	1.8814
S355G13 (+N/+QT)	1.1182
S355G14 (+N/+QT)	1.1184
S355G15 (+N/+QT)	1.1190
S420G5 (+QT)	1.8853
S460G5 (+QT)	1.8885
S420G6 (+QT)	1.8852
S460G6 (+QT)	1.8884
S355G8 (+M)	1.8810
S355G10 (+N/+M)	1.8813
S420G2 (+M)	1.8857
S460G2 (+M)	1.8887

**Tabelle 6: Offshore steels according to DIN-EN 10025**

#### **d. Roll-bonded clad plates**

According to the Federal Competition Office, roll-bonded clad plates, as used in the oil and gas production, refineries, petrochemical industry and power plants, have not been affected by the cartel. Starting material for roll-bonded clad plates are typically steel types according to DIN-EN 10025-2, DIN-EN 10028-2 and -3.<sup>14</sup>

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<sup>14</sup> Source: voestalpine Grobblech GmbH „Roll-bonded clad plates“, available at <https://www.voestalpine.com/stahl/Produkte/Grobbleche/Plattierte-Bleche>, last retrieved on June 14, 2021.

## Appendix B: Technical documentation

Purchasers of quarto plates typically receive a certificate of inspection, detailing the quality and origin of the products. These certificates contain relevant information to prove the purchase of affected plates.

According to DIN-EN 10204, these certificates are systematized as follows:


<b>No.</b>	<b>Name</b>	<b>Content</b>	<b>Confirmation by</b>
2.1	Factory certificate	Confirmation of compliance with the order	the producer
2.2	Certificate of work	Confirmation of compliance with the order, indicating the results of non-specific testing	the producer
3.1	Inspection certificate 3.1	Confirmation of compliance with the order, indicating results of specific tests	the acceptance representative, who is independent of the manufacturing department
3.2	Inspection certificate 3.2	Confirmation of compliance with the order, indicating results of specific tests	the manufacturer's authorized inspection representative, who is independent of the production department, and the authorized inspection representative appointed by the purchaser or the inspection representative named in the official regulations

**Table 7: Systematization of the certificates of inspection according to DIN-EN 10204**


Exemplary excerpts of the certificates of inspection with relevant information are presented below:

Type of certificate

Order, and batch numbers;  
Date of issue


**ILSENBURGER  
GROBBLECH**  
Ein Unternehmen der Salzgitter Gruppe

<b>Abnahmeprüfzeugnis 3.1</b> <small>Inspection Certificate 3.1          Certificat de reception 3.1          DIN EN 10204          (A1)</small>	<small>Werkstoff-Nr.</small> 641639 <small>Seite/Folie</small> 5/5 <small>Zeichnungsdatum</small> 27.05.2010
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 0045

Ilsenburger Grobblech GmbH  
 Veckenstedter Weg 10  
 D-38871 Ilsenburg

10  
 0045-CPD-0673-2005-01

**EN 10025-1**  
 Warmgewalzte Baustahlprodukte  
 Hot rolled structural steel products  
 Produits en acier de construction laminé à chaud

Vorgesehene Verwendungen: Intended uses: Usages prévus:	Hochbauten und Ingenieurbauwerke Building constructions or civil engineering Construction de bâtiments ou génie civil
Grenzabmaße und Formtoleranzen: Tolerances on dimensions and shape: Tolérances sur les dimensions et la forme:	Warmgewalstes Grobblech Hot rolled heavy plates Tôles fortes refendues laminées à chaud: EN 10029
Dehnung / Elongation / Élongation: Zugfestigkeit / Tensile strength / Résistance à la traction: Streckgrenze / Yield strenght / Limite d'élasticité: Kerbschlagarbeit / Impact strenght / Résistance au choc: Schweißseignung / Weldability / Soudabilité:	Keine Leistung festgestellt No performance determined Aucune performance déterminée
Dauerhaftigkeit: Durability: Durabilité:	Keine Leistung festgestellt No performance determined Aucune performance déterminée
Regulierter Stoff: Regulated substance: Substance Réglementée:	Keine Leistung festgestellt No performance determined Aucune performance déterminée

S355J2+W  
 DIN EN 10025-2 04/05

Steel type  
or grade

Figure 1: Exemplary excerpt of the inspection certificate 3.1 of Ilsenburger Grobblech GmbH

Manufacturer

Order, batch, or heat numbers

**thyssenkrupp Steel Europe**

Works No. 4839945	Certificate No. 1943546001	Delivery No. 48990992	Page No. 1
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thyssenkrupp SteelEurope AG - 47161 Duisburg A01

A06

Bestell-Nr.  
9428.1

Order-Nr.  
A07.1-A07.5

XAR 400 TKSE-PI XAR 07.19 10ADQ10306.19  
OB EN 10163 KLB/3

Kannzeichnung:  
Material: MATERIAL, HEAT-NO., MANUFACTURING/SAMPLE-  
Marking: Marking  
Blau: B06

BESCHÜNDIGUNG ÜBER MATERIALPRÜFUNGEN  
 DOCUMENT ON MATERIAL TESTS  
 DOCUMENT DE CONTROL DES MATERIAUX

102 INSPECTION CERTIFICATE 3.1

25.11.2019

B07 BUNDLE      B07 PLATE-NO.      B07 HEAT-NO.  
 B09 x B10 x B11  
 12,0 x 2500,0 x 8000 [mm]  
 25837101      664692  
 25837202      664692  
 25837303      664692

ITEM	B07 BUNDLE	B07 PLATE-NO.	B07 HEAT-NO.	B08 NUMBER PIECES	B13 WEIGHT Kg
004	B09 x B10 x B11 12,0 x 2500,0 x 8000 [mm]	25837101	664692	1	1.948
		25837202	664692	1	1.948
		25837303	664692	1	1.948
		+			3
013	30,0 x 2500,0 x 8000 [mm]	49521101	664209	1	4.861
		20774202	665023	1	4.861
		20880101	665023	1	4.861
		20880202	665023	1	4.861
		24194101	665023	1	4.861
		24194202	665023	1	4.861
		89971101	665023	1	4.861
		+			7
**			10	39.871	

TRANSPORT-NO.  
318048521864

CHEMICAL COMPOSITION OF THE LADLE SAMPLES \*      C71-C99

B07 HEAT NO.	C	SI	MN	P	S	B-G	CR	CU	MO	NI	V
664209	,157	,193	1,260	,010	,0004	,0024	,634	,040	,006	,035	,003

thyssenkrupp Steel Europe AG

Abnahme

-FOLGESEITE-

Figure 2: Exemplary excerpt of the inspection certificate 3.1 of thyssenkrupp Steel Europe AG

Type of certificate

Manufacturer

Steel type  
or grade



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0 06 151 MH

**Test Certificate for Materials 3.2** acc. to EN 10204 (2005)  
*Abnahmeprüfzeugnis 3.2 gemäß EN 10204 (2005)*

Certificate No.  
Bescheinigungs-Nr.

Order No.:  
Bestell-Nr.

Man. approval No. WZ 238 HH 16  
Hersteller- / Zulassungs-Nr.

Ordered by:  
Besteller

Manufacturer/supplier: Ilsenburger Grobblech GmbH Ilsenburg  
Hersteller/Lieferer Germany (M)

Item:  
Prüfgegenstand Grobblech / Heavy plate

Test Requirements:  
Prüfbedingungen Werkstoffvorschriften des Bestellers/Specification of Customer

Material designation:  
Werkstoffbezeichnung S355J2+N W-Nr. 1.0577+N

according to:  
entsprechend DIN EN 10025-2 (2005)

Manufacturing Process and Heat Treatment:  
Herstellung und Wärmebehandlung normalisiert / normalized

Identification Marks on item tested:  
Kennzeichnung des Prüfgegenstandes

Manufacturer's symbol Zeichen des Herstellers	:	-
Material designation Werkstoffbezeichnung	:	+
Melting Process Erschmelzungsart	:	-
Heat No. Schmelzen-Nr.	:	+
Test piece No. Probe-Nr.	:	+

Certificate No. Bescheinigungs-Nr.	:	-
Month/Year of Test Monat/Jahr der Prüf.	:	-
Germanischer Lloyd stamp Stempel des Germanischen Lloyd	:	GL
Items from which test pieces, were taken also stamped Außerdem trägt jedes Stück, dem Proben entstammen, den Stempel	:	GL

The requirements are complied with as stated in the appendix (test results).  
Die gestellten Anforderungen sind lt. Anlage (Prüfergebnisse) erfüllt.

Remarks:  
Bemerkung: Inspected (and tested) according to customers' specification. Not inspected according to GL-rules for seagoing ships. Hartstempelung / die stamp

Date

Date of testing 11.06.2010  
Prüfdatum

Total weight: 12000 kg  
Gesamt-Gewicht

2 Encloser(s)  
Anlage(n)  
006151MH;641639



Place and date Mülheim, 11.06.2010  
Ort und Datum

Schmidt z. Berge  
Inspector to Germanischer Lloyd  
Inspektor Germanischer Lloyd

Amount

Managing Directors: Lutz Wittenberg (Spokesman) • Hans Berg  
Germanischer Lloyd Industrial Services GmbH, Registered Office Hamburg No. HR B 65804  
Place of performance and jurisdiction is Hamburg. The latest edition of the General Terms and Conditions of Germanischer Lloyd Industrial Services GmbH is applicable.  
German law applies.

Figure 3: Exemplary excerpt of the inspection certificate 3.2 of Germanischer Lloyd