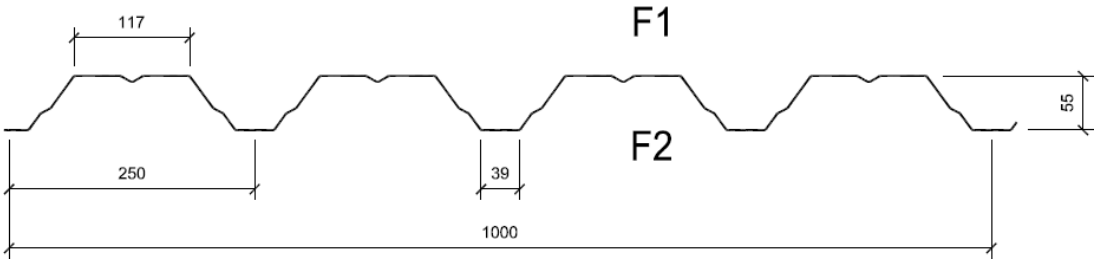
TECHNICAL DATA SHEET

OF PROFILE

Trapeza® 55/250 T

Trapeza® 55/250 T



Technical parameters:

Coil width:	1250 mm
Profile width:	1000 mm
Yield strength:	S320GD, S350GD according to EN 10346
Thickness:	0,60; 0,63; 0,70; 0,75; 0,80; 0,88, 1,00; 1,25 mm acc. to EN 10143
Durability/Coating quality:	ZM 60, ZM80, ZM100, ZM120, ZM175, ZM275 and Z100, 140, 200, 225, 275, 350 acc. to EN 10346
Organic coating:	Interieur (DU912, DU901), Hairplus, Hairultra, Hairflon, Keyron, Hairexcel, Sinea, (or acc. to Material guide), acc. to EN 10169
Max. length:	14 m
Min. length:	2 m

Tables of resistance of profiled sheeting ArcelorMittal

For all profiles, steel S320 is used. Material characteristics are as follows:

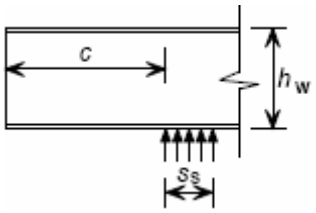
- yield strength f_y= 320 MPa
- proof strength f_u=390 MPa
- modulus of elasticity E = 210 000 MPa
- density 7850 kg/m^3

The design thickness of the sheet given in the tables is the core thickness only. No coatings or paintings are included neither in the thickness nor in the calculated weight of the profiled sheeting. Minus tolerance in the sheet thickness is lower than 5 %.

The design resistances are calculated for uniformly loaded simply supported or continuous beams (where the spans are also uniform).

Ultimate limit state (ULS)

The design resistance according to the ultimate limit state is given by "q_{Ed}" which is calculated with respect to the bending resistance, shear resistance, local transverse forces and their interactions as defined in CSN EN 1993-1-3 and other referenced codes. The width of the end support s_s is 40 mm and 120 mm for the internal support respectively. In the tables, two different resistances are given according to the distance "c" (see figure bellow the paragraph) from the end support to the free end. One resistance "q_{Ed} (c<1,5h) " is for profiles which meets the minimal distance of the overhang "c" at least 40 mm. For the second resistance "q_{Ed} (c≥1,5h) ", the distance at least 1.5 x h_w (web height) clear from a free end is considered.



The real design load must be always smaller or at least equal to the resistance given in the tables. The maximal design resistances (load values) in the tables are related to a one-meter width of the profiled sheeting. Units used in the tables are kN/m^2. The self-weight of the sheeting must be included in the load.

Serviceability limit state (SLS)

The characteristics load "q_{Ek}" that meets the serviceability limit for deflection of L/200 (where L means the span) is given in the table. In view of the fact that the behavior in the SLS is elastic, characteristic load for different limits may be extrapolated from the table. To fulfil the condition of the limit, the real characteristics load must be lower or at least equal to the value given by the tables.

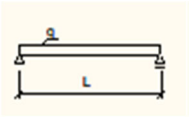
Used design codes:

ČSN EN 1993-1-1: Navrhování ocelových konstrukcí, Část 1-1: Obecná pravidla a pravidla pro pozemní stavby, ČNI, 2006. (Design of steel structures, Part 1-1: General rules and rules for buildings)

ČSN EN 1993-1-3: Navrhování ocelových konstrukcí, Část 1-3: Obecná pravidla – Doplňující pravidla pro tenkostěnné za studena tvarované prvky a plošné profily, ČNI, 2008. (Design of steel structures, Part 1-3: General rules - Supplementary rules for cold-formed members and sheeting)

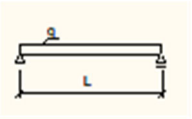
ČSN EN 1993-1-5: Navrhování ocelových konstrukcí, Část 1-5: Boulení stěn, ČNI, 2008. (Design of steel structures, Part 1-5: Plated structural elements)

Single span – positive position



Trapeza® 55/250 T		Span [m]															
t [mm]	S320	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00
0,6	q_{Rd} (c<1.5h)	6,732	5,610	4,808	4,207	3,654	2,960	2,446	2,055	1,751	1,510	1,315	1,156	1,024	0,914	0,820	0,740
	q_{Rd} (c≥1.5h)	11,839	8,222	6,041	4,625	3,654	2,960	2,446	2,055	1,751	1,510	1,315	1,156	1,024	0,914	0,820	0,740
	q_{Rk} (L/200)	8,470	4,901	3,087	2,068	1,452	1,059	0,795	0,613	0,482	0,386	0,314	0,258	0,215	0,182	0,154	0,132
0,63	q_{Rd} (c<1.5h)	7,509	6,257	5,363	4,693	4,027	3,262	2,696	2,265	1,930	1,664	1,450	1,274	1,129	1,007	0,904	0,815
	q_{Rd} (c≥1.5h)	13,047	9,060	6,657	5,096	4,027	3,262	2,696	2,265	1,930	1,664	1,450	1,274	1,129	1,007	0,904	0,815
	q_{Rk} (L/200)	9,165	5,304	3,340	2,238	1,572	1,146	0,861	0,663	0,521	0,418	0,339	0,280	0,233	0,196	0,167	0,143
0,7	q_{Rd} (c<1.5h)	9,472	7,893	6,766	5,818	4,597	3,724	3,077	2,586	2,203	1,900	1,655	1,455	1,288	1,149	1,031	0,931
	q_{Rd} (c≥1.5h)	14,894	10,343	7,599	5,818	4,597	3,724	3,077	2,586	2,203	1,900	1,655	1,455	1,288	1,149	1,031	0,931
	q_{Rk} (L/200)	10,823	6,263	3,944	2,642	1,856	1,353	1,016	0,783	0,616	0,493	0,401	0,330	0,275	0,232	0,197	0,169
0,75	q_{Rd} (c<1.5h)	11,001	9,167	7,858	6,311	4,986	4,039	3,338	2,805	2,390	2,061	1,795	1,578	1,397	1,247	1,119	1,010
	q_{Rd} (c≥1.5h)	16,155	11,219	8,242	6,311	4,986	4,039	3,338	2,805	2,390	2,061	1,795	1,578	1,397	1,247	1,119	1,010
	q_{Rk} (L/200)	11,884	6,877	4,331	2,901	2,038	1,486	1,116	0,860	0,676	0,541	0,440	0,363	0,302	0,255	0,217	0,186
0,8	q_{Rd} (c<1.5h)	12,635	10,529	8,889	6,806	5,377	4,356	3,600	3,025	2,577	2,222	1,936	1,701	1,507	1,344	1,207	1,089
	q_{Rd} (c≥1.5h)	17,423	12,099	8,889	6,806	5,377	4,356	3,600	3,025	2,577	2,222	1,936	1,701	1,507	1,344	1,207	1,089
	q_{Rk} (L/200)	12,966	7,503	4,725	3,165	2,223	1,621	1,218	0,938	0,738	0,591	0,480	0,396	0,330	0,278	0,236	0,203
0,88	q_{Rd} (c<1.5h)	15,464	12,886	9,930	7,603	6,007	4,866	4,021	3,379	2,879	2,483	2,163	1,901	1,684	1,502	1,348	1,216
	q_{Rd} (c≥1.5h)	19,463	13,516	9,930	7,603	6,007	4,866	4,021	3,379	2,879	2,483	2,163	1,901	1,684	1,502	1,348	1,216
	q_{Rk} (L/200)	14,734	8,526	5,369	3,597	2,526	1,842	1,384	1,066	0,838	0,671	0,546	0,450	0,375	0,316	0,269	0,230
1	q_{Rd} (c<1.5h)	20,197	15,655	11,502	8,806	6,958	5,636	4,658	3,914	3,335	2,875	2,505	2,201	1,950	1,739	1,561	1,409
	q_{Rd} (c≥1.5h)	22,543	15,655	11,502	8,806	6,958	5,636	4,658	3,914	3,335	2,875	2,505	2,201	1,950	1,739	1,561	1,409
	q_{Rk} (L/200)	17,456	10,102	6,362	4,262	2,993	2,182	1,639	1,263	0,993	0,795	0,647	0,533	0,444	0,374	0,318	0,273
1,25	q_{Rd} (c<1.5h)	29,001	20,139	14,796	11,328	8,951	7,250	5,992	5,035	4,290	3,699	3,222	2,832	2,509	2,238	2,008	1,813
	q_{Rd} (c≥1.5h)	29,001	20,139	14,796	11,328	8,951	7,250	5,992	5,035	4,290	3,699	3,222	2,832	2,509	2,238	2,008	1,813
	q_{Rk} (L/200)	23,347	13,511	8,508	5,700	4,003	2,918	2,193	1,689	1,328	1,064	0,865	0,712	0,594	0,500	0,425	0,365

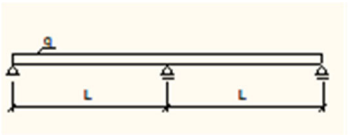
Single span – negative position



Trapeza® 55/250 T		Span [m]															
t [mm]	S320	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00
0,6	q_{Rd} (c<1.5h)	5,567	4,639	3,976	3,479	3,093	2,695	2,227	1,871	1,594	1,375	1,198	1,053	0,932	0,832	0,746	0,674
	q_{Rd} (c≥1.5h)	10,778	7,485	5,499	4,210	3,327	2,695	2,227	1,871	1,594	1,375	1,198	1,053	0,932	0,832	0,746	0,674
	q_{Rk} (L/200)	9,919	5,740	3,615	2,422	1,701	1,240	0,932	0,718	0,564	0,452	0,367	0,303	0,252	0,213	0,181	0,155
0,63	q_{Rd} (c<1.5h)	6,175	5,145	4,410	3,859	3,430	2,899	2,396	2,013	1,715	1,479	1,288	1,132	1,003	0,895	0,803	0,725
	q_{Rd} (c≥1.5h)	11,595	8,052	5,916	4,529	3,579	2,899	2,396	2,013	1,715	1,479	1,288	1,132	1,003	0,895	0,803	0,725
	q_{Rk} (L/200)	10,634	6,154	3,875	2,596	1,823	1,329	0,999	0,769	0,605	0,484	0,394	0,325	0,271	0,228	0,194	0,166
0,7	q_{Rd} (c<1.5h)	7,725	6,437	5,518	4,828	4,183	3,388	2,800	2,353	2,005	1,729	1,506	1,323	1,172	1,046	0,939	0,847
	q_{Rd} (c≥1.5h)	13,552	9,411	6,914	5,294	4,183	3,388	2,800	2,353	2,005	1,729	1,506	1,323	1,172	1,046	0,939	0,847
	q_{Rk} (L/200)	12,338	7,140	4,496	3,012	2,116	1,542	1,159	0,893	0,702	0,562	0,457	0,377	0,314	0,264	0,225	0,193
0,75	q_{Rd} (c<1.5h)	8,949	7,458	6,392	5,593	4,627	3,747	3,097	2,602	2,217	1,912	1,666	1,464	1,297	1,157	1,038	0,937
	q_{Rd} (c≥1.5h)	14,990	10,410	7,648	5,855	4,627	3,747	3,097	2,602	2,217	1,912	1,666	1,464	1,297	1,157	1,038	0,937
	q_{Rk} (L/200)	13,582	7,860	4,950	3,316	2,329	1,698	1,276	0,983	0,773	0,619	0,503	0,414	0,346	0,291	0,248	0,212
0,8	q_{Rd} (c<1.5h)	10,276	8,563	7,340	6,422	5,079	4,114	3,400	2,857	2,434	2,099	1,829	1,607	1,424	1,270	1,140	1,029
	q_{Rd} (c≥1.5h)	16,457	11,428	8,396	6,429	5,079	4,114	3,400	2,857	2,434	2,099	1,829	1,607	1,424	1,270	1,140	1,029
	q_{Rk} (L/200)	14,845	8,591	5,410	3,624	2,545	1,856	1,394	1,074	0,845	0,676	0,550	0,453	0,378	0,318	0,271	0,232
0,88	q_{Rd} (c<1.5h)	12,621	10,517	9,015	7,366	5,820	4,714	3,896	3,274	2,789	2,405	2,095	1,841	1,631	1,455	1,306	1,179
	q_{Rd} (c≥1.5h)	18,857	13,095	9,621	7,366	5,820	4,714	3,896	3,274	2,789	2,405	2,095	1,841	1,631	1,455	1,306	1,179
	q_{Rk} (L/200)	16,901	9,781	6,159	4,126	2,898	2,113	1,587	1,223	0,962	0,770	0,626	0,516	0,430	0,362	0,308	0,264
1	q_{Rd} (c<1.5h)	16,688	13,907	11,506	8,809	6,960	5,638	4,659	3,915	3,336	2,876	2,506	2,202	1,951	1,740	1,562	1,409
	q_{Rd} (c≥1.5h)	22,551	15,661	11,506	8,809	6,960	5,638	4,659	3,915	3,336	2,876	2,506	2,202	1,951	1,740	1,562	1,409
	q_{Rk} (L/200)	20,046	11,601	7,305	4,894	3,437	2,506	1,883	1,450	1,141	0,913	0,742	0,612	0,510	0,430	0,365	0,313
1,25	q_{Rd} (c<1.5h)	27,583	21,044	15,461	11,837	9,353	7,576	6,261	5,261	4,483	3,865	3,367	2,959	2,621	2,338	2,099	1,894
	q_{Rd} (c≥1.5h)	30,303	21,044	15,461	11,837	9,353	7,576	6,261	5,261	4,483	3,865	3,367	2,959	2,621	2,338	2,099	1,894
	q_{Rk} (L/200)	26,637	15,415	9,707	6,503	4,567	3,330	2,502	1,927	1,516	1,213	0,987	0,813	0,678	0,571	0,485	0,416

ArcelorMittal

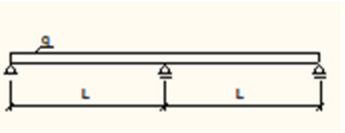
Double span – positive position



Trapeza® 55/250 T		Span [m]															
t [mm]	S320	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00
0,6	q_{Rd} (c<1.5h)	6,359	4,842	3,821	3,097	2,565	2,160	1,845	1,595	1,394	1,228	1,090	0,975	0,877	0,793	0,721	0,658
	q_{Rd} (c≥1.5h)	6,359	4,842	3,821	3,097	2,565	2,160	1,845	1,595	1,394	1,228	1,090	0,975	0,877	0,793	0,721	0,658
	q_{Rk} (L/200)	20,953	12,126	7,636	5,116	3,593	2,619	1,968	1,516	1,192	0,955	0,776	0,639	0,533	0,449	0,382	0,327
0,63	q_{Rd} (c<1.5h)	6,953	5,287	4,167	3,374	2,791	2,349	2,006	1,733	1,513	1,333	1,183	1,057	0,951	0,859	0,781	0,713
	q_{Rd} (c≥1.5h)	6,953	5,287	4,167	3,374	2,791	2,349	2,006	1,733	1,513	1,333	1,183	1,057	0,951	0,859	0,781	0,713
	q_{Rk} (L/200)	22,674	13,121	8,263	5,536	3,888	2,834	2,129	1,640	1,290	1,033	0,840	0,692	0,577	0,486	0,413	0,354
0,7	q_{Rd} (c<1.5h)	8,401	6,369	5,007	4,047	3,342	2,808	2,394	2,066	1,802	1,585	1,406	1,256	1,128	1,019	0,926	0,844
	q_{Rd} (c≥1.5h)	8,401	6,369	5,007	4,047	3,342	2,808	2,394	2,066	1,802	1,585	1,406	1,256	1,128	1,019	0,926	0,844
	q_{Rk} (L/200)	26,775	15,495	9,758	6,537	4,591	3,347	2,515	1,937	1,523	1,220	0,992	0,817	0,681	0,574	0,488	0,418
0,75	q_{Rd} (c<1.5h)	9,486	7,178	5,635	4,547	3,751	3,149	2,682	2,313	2,016	1,773	1,571	1,402	1,260	1,138	1,033	0,937
	q_{Rd} (c≥1.5h)	9,486	7,178	5,635	4,547	3,751	3,149	2,682	2,313	2,016	1,773	1,571	1,402	1,260	1,138	1,033	0,937
	q_{Rk} (L/200)	29,401	17,014	10,715	7,178	5,041	3,675	2,761	2,127	1,673	1,339	1,089	0,897	0,748	0,630	0,536	0,459
0,8	q_{Rd} (c<1.5h)	10,609	8,015	6,282	5,064	4,173	3,500	2,979	2,567	2,236	1,965	1,741	1,553	1,394	1,259	1,140	1,029
	q_{Rd} (c≥1.5h)	10,609	8,015	6,282	5,064	4,173	3,500	2,979	2,567	2,236	1,965	1,741	1,553	1,394	1,259	1,140	1,029
	q_{Rk} (L/200)	32,076	18,563	11,690	7,831	5,500	4,010	3,012	2,320	1,825	1,461	1,188	0,979	0,816	0,688	0,585	0,501
0,88	q_{Rd} (c<1.5h)	12,482	9,406	7,358	5,920	4,871	4,080	3,469	2,987	2,599	2,282	2,021	1,802	1,617	1,455	1,306	1,179
	q_{Rd} (c≥1.5h)	12,482	9,406	7,358	5,920	4,871	4,080	3,469	2,987	2,599	2,282	2,021	1,802	1,617	1,455	1,306	1,179
	q_{Rk} (L/200)	36,451	21,094	13,284	8,899	6,250	4,556	3,423	2,637	2,074	1,660	1,350	1,112	0,927	0,781	0,664	0,570
1	q_{Rd} (c<1.5h)	15,446	11,600	9,049	7,265	5,966	4,989	4,236	3,642	3,166	2,777	2,457	2,189	1,951	1,740	1,562	1,409
	q_{Rd} (c≥1.5h)	15,446	11,600	9,049	7,265	5,966	4,989	4,236	3,642	3,166	2,777	2,457	2,189	1,951	1,740	1,562	1,409
	q_{Rk} (L/200)	43,186	24,992	15,738	10,543	7,405	5,398	4,056	3,124	2,457	1,967	1,599	1,318	1,099	0,926	0,787	0,675
1,25	q_{Rd} (c<1.5h)	22,031	16,446	12,766	10,207	8,353	6,965	5,898	5,060	4,389	3,844	3,367	2,959	2,621	2,338	2,099	1,894
	q_{Rd} (c≥1.5h)	22,031	16,446	12,766	10,207	8,353	6,965	5,898	5,060	4,389	3,844	3,367	2,959	2,621	2,338	2,099	1,894
	q_{Rk} (L/200)	57,759	33,425	21,049	14,101	9,904	7,220	5,424	4,178	3,286	2,631	2,139	1,763	1,470	1,238	1,053	0,902

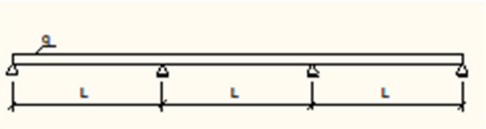
ArcelorMittal

Double span – negative position



Trapeza® 55/250 T		Span [m]															
t [mm]	S320	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00
0,6	q_{Rd} (c<1.5h)	5,953	4,592	3,663	2,997	2,502	2,123	1,825	1,587	1,393	1,233	1,100	0,987	0,891	0,808	0,737	0,674
	q_{Rd} (c≥1.5h)	5,953	4,592	3,663	2,997	2,502	2,123	1,825	1,587	1,393	1,233	1,100	0,987	0,891	0,808	0,737	0,674
	q_{Rk} (L/200)	24,539	14,201	8,943	5,991	4,208	3,067	2,305	1,775	1,396	1,118	0,909	0,749	0,624	0,526	0,447	0,383
0,63	q_{Rd} (c<1.5h)	6,565	5,064	4,039	3,305	2,759	2,341	2,012	1,750	1,536	1,360	1,212	1,088	0,982	0,891	0,812	0,743
	q_{Rd} (c≥1.5h)	6,565	5,064	4,039	3,305	2,759	2,341	2,012	1,750	1,536	1,360	1,212	1,088	0,982	0,891	0,812	0,743
	q_{Rk} (L/200)	26,309	15,225	9,588	6,423	4,511	3,289	2,471	1,903	1,497	1,198	0,974	0,803	0,669	0,564	0,479	0,411
0,7	q_{Rd} (c<1.5h)	7,857	6,038	4,801	3,918	3,263	2,763	2,371	2,058	1,804	1,595	1,420	1,273	1,148	1,041	0,948	0,867
	q_{Rd} (c≥1.5h)	7,857	6,038	4,801	3,918	3,263	2,763	2,371	2,058	1,804	1,595	1,420	1,273	1,148	1,041	0,948	0,867
	q_{Rk} (L/200)	30,525	17,665	11,124	7,452	5,234	3,816	2,867	2,208	1,737	1,391	1,131	0,932	0,777	0,654	0,556	0,477
0,75	q_{Rd} (c<1.5h)	8,810	6,753	5,358	4,364	3,628	3,067	2,629	2,279	1,996	1,762	1,568	1,405	1,266	1,147	1,044	0,954
	q_{Rd} (c≥1.5h)	8,810	6,753	5,358	4,364	3,628	3,067	2,629	2,279	1,996	1,762	1,568	1,405	1,266	1,147	1,044	0,954
	q_{Rk} (L/200)	33,602	19,445	12,246	8,204	5,762	4,200	3,156	2,431	1,912	1,531	1,245	1,025	0,855	0,720	0,612	0,525
0,8	q_{Rd} (c<1.5h)	9,800	7,493	5,932	4,823	4,003	3,379	2,893	2,505	2,191	1,934	1,719	1,539	1,386	1,255	1,141	1,043
	q_{Rd} (c≥1.5h)	9,800	7,493	5,932	4,823	4,003	3,379	2,893	2,505	2,191	1,934	1,719	1,539	1,386	1,255	1,141	1,043
	q_{Rk} (L/200)	36,727	21,254	13,384	8,966	6,297	4,591	3,449	2,657	2,090	1,673	1,360	1,121	0,934	0,787	0,669	0,574
0,88	q_{Rd} (c<1.5h)	11,457	8,726	6,887	5,583	4,623	3,895	3,327	2,877	2,513	2,215	1,967	1,759	1,582	1,431	1,300	1,187
	q_{Rd} (c≥1.5h)	11,457	8,726	6,887	5,583	4,623	3,895	3,327	2,877	2,513	2,215	1,967	1,759	1,582	1,431	1,300	1,187
	q_{Rk} (L/200)	41,812	24,197	15,238	10,208	7,169	5,226	3,927	3,025	2,379	1,905	1,549	1,276	1,064	0,896	0,762	0,653
1	q_{Rd} (c<1.5h)	14,103	10,683	8,393	6,779	5,595	4,699	4,005	3,455	3,012	2,650	2,349	2,098	1,884	1,702	1,545	1,409
	q_{Rd} (c≥1.5h)	14,103	10,683	8,393	6,779	5,595	4,699	4,005	3,455	3,012	2,650	2,349	2,098	1,884	1,702	1,545	1,409
	q_{Rk} (L/200)	49,592	28,699	18,073	12,107	8,503	6,199	4,657	3,587	2,822	2,259	1,837	1,513	1,262	1,063	0,904	0,775
1,25	q_{Rd} (c<1.5h)	20,179	15,131	11,789	9,454	7,756	6,482	5,499	4,725	4,105	3,600	3,183	2,832	2,509	2,238	2,008	1,813
	q_{Rd} (c≥1.5h)	20,179	15,131	11,789	9,454	7,756	6,482	5,499	4,725	4,105	3,600	3,183	2,832	2,509	2,238	2,008	1,813
	q_{Rk} (L/200)	65,898	38,135	24,015	16,088	11,299	8,237	6,189	4,767	3,749	3,002	2,441	2,011	1,677	1,412	1,201	1,030

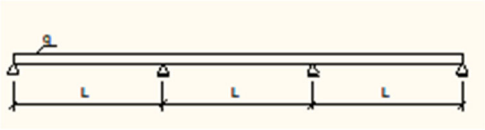
Triple span – positive position



Trapeza® 55/250 T		Span [m]															
t [mm]	S320	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00
0,6	q_{Rd} (c<1.5h)	7,550	5,774	4,573	3,719	3,087	2,607	2,231	1,933	1,691	1,492	1,327	1,188	1,070	0,968	0,881	0,805
	q_{Rd} (c≥1.5h)	7,550	5,774	4,573	3,719	3,087	2,607	2,231	1,933	1,691	1,492	1,327	1,188	1,070	0,968	0,881	0,805
	q_{Rk} (L/200)	15,494	8,967	5,647	3,783	2,657	1,937	1,455	1,121	0,882	0,706	0,574	0,473	0,394	0,332	0,282	0,242
0,63	q_{Rd} (c<1.5h)	8,261	6,309	4,991	4,054	3,363	2,837	2,427	2,101	1,837	1,620	1,440	1,289	1,160	1,050	0,955	0,872
	q_{Rd} (c≥1.5h)	8,261	6,309	4,991	4,054	3,363	2,837	2,427	2,101	1,837	1,620	1,440	1,289	1,160	1,050	0,955	0,872
	q_{Rk} (L/200)	16,767	9,703	6,110	4,093	2,875	2,096	1,575	1,213	0,954	0,764	0,621	0,512	0,427	0,359	0,306	0,262
0,7	q_{Rd} (c<1.5h)	9,997	7,612	6,007	4,869	4,031	3,396	2,901	2,508	2,190	1,930	1,714	1,532	1,378	1,247	1,133	1,034
	q_{Rd} (c≥1.5h)	9,997	7,612	6,007	4,869	4,031	3,396	2,901	2,508	2,190	1,930	1,714	1,532	1,378	1,247	1,133	1,034
	q_{Rk} (L/200)	19,799	11,458	7,216	4,834	3,395	2,475	1,859	1,432	1,126	0,902	0,733	0,604	0,504	0,424	0,361	0,309
0,75	q_{Rd} (c<1.5h)	11,299	8,587	6,765	5,477	4,529	3,811	3,253	2,810	2,453	2,160	1,917	1,713	1,540	1,392	1,265	1,154
	q_{Rd} (c≥1.5h)	11,299	8,587	6,765	5,477	4,529	3,811	3,253	2,810	2,453	2,160	1,917	1,713	1,540	1,392	1,265	1,154
	q_{Rk} (L/200)	21,741	12,582	7,923	5,308	3,728	2,718	2,042	1,573	1,237	0,990	0,805	0,663	0,553	0,466	0,396	0,340
0,8	q_{Rd} (c<1.5h)	12,649	9,597	7,550	6,104	5,043	4,239	3,615	3,121	2,722	2,396	2,125	1,898	1,706	1,542	1,400	1,277
	q_{Rd} (c≥1.5h)	12,649	9,597	7,550	6,104	5,043	4,239	3,615	3,121	2,722	2,396	2,125	1,898	1,706	1,542	1,400	1,277
	q_{Rk} (L/200)	23,720	13,727	8,644	5,791	4,067	2,965	2,228	1,716	1,350	1,081	0,879	0,724	0,603	0,508	0,432	0,371
0,88	q_{Rd} (c<1.5h)	14,902	11,278	8,853	7,145	5,894	4,948	4,215	3,635	3,168	2,786	2,469	2,204	1,980	1,788	1,623	1,473
	q_{Rd} (c≥1.5h)	14,902	11,278	8,853	7,145	5,894	4,948	4,215	3,635	3,168	2,786	2,469	2,204	1,980	1,788	1,623	1,473
	q_{Rk} (L/200)	26,954	15,599	9,823	6,581	4,622	3,369	2,531	1,950	1,534	1,228	0,998	0,823	0,686	0,578	0,491	0,421
1	q_{Rd} (c<1.5h)	18,473	13,933	10,907	8,783	7,230	6,060	5,154	4,439	3,864	3,394	3,006	2,681	2,406	2,171	1,952	1,762
	q_{Rd} (c≥1.5h)	18,473	13,933	10,907	8,783	7,230	6,060	5,154	4,439	3,864	3,394	3,006	2,681	2,406	2,171	1,952	1,762
	q_{Rk} (L/200)	31,935	18,481	11,638	7,797	5,476	3,992	2,999	2,310	1,817	1,455	1,183	0,975	0,813	0,684	0,582	0,499
1,25	q_{Rd} (c<1.5h)	26,433	19,815	15,434	12,375	10,151	8,481	7,195	6,182	5,370	4,709	4,163	3,699	3,277	2,923	2,623	2,367
	q_{Rd} (c≥1.5h)	26,433	19,815	15,434	12,375	10,151	8,481	7,195	6,182	5,370	4,709	4,163	3,699	3,277	2,923	2,623	2,367
	q_{Rk} (L/200)	42,711	24,717	15,565	10,428	7,324	5,339	4,011	3,090	2,430	1,946	1,582	1,303	1,087	0,915	0,778	0,667

ArcelorMittal

Triple span – negative position



Trapeza® 55/250 T		Span [m]															
t [mm]	S320	1,25	1,50	1,75	2,00	2,25	2,50	2,75	3,00	3,25	3,50	3,75	4,00	4,25	4,50	4,75	5,00
0,6	q_{Rd} (c<1.5h)	6,959	5,439	4,355	3,575	2,992	2,545	2,193	1,911	1,680	1,490	1,331	1,196	1,081	0,982	0,896	0,821
	q_{Rd} (c≥1.5h)	7,022	5,439	4,355	3,575	2,992	2,545	2,193	1,911	1,680	1,490	1,331	1,196	1,081	0,982	0,896	0,821
	q_{Rk} (L/200)	18,146	10,501	6,613	4,430	3,111	2,268	1,704	1,313	1,032	0,827	0,672	0,554	0,462	0,389	0,331	0,284
0,63	q_{Rd} (c<1.5h)	7,718	5,998	4,802	3,942	3,300	2,806	2,418	2,106	1,853	1,643	1,467	1,318	1,191	1,082	0,988	0,905
	q_{Rd} (c≥1.5h)	7,744	5,998	4,802	3,942	3,300	2,806	2,418	2,106	1,853	1,643	1,467	1,318	1,191	1,082	0,988	0,905
	q_{Rk} (L/200)	19,455	11,258	7,090	4,750	3,336	2,432	1,827	1,407	1,107	0,886	0,721	0,594	0,495	0,417	0,355	0,304
0,7	q_{Rd} (c<1.5h)	9,284	7,165	5,719	4,682	3,910	3,318	2,854	2,482	2,180	1,930	1,721	1,545	1,395	1,266	1,154	1,057
	q_{Rd} (c≥1.5h)	9,284	7,165	5,719	4,682	3,910	3,318	2,854	2,482	2,180	1,930	1,721	1,545	1,395	1,266	1,154	1,057
	q_{Rk} (L/200)	22,572	13,063	8,226	5,511	3,870	2,822	2,120	1,633	1,284	1,028	0,836	0,689	0,574	0,484	0,411	0,353
0,75	q_{Rd} (c<1.5h)	10,425	8,025	6,391	5,222	4,353	3,689	3,168	2,752	2,414	2,136	1,903	1,707	1,540	1,396	1,272	1,164
	q_{Rd} (c≥1.5h)	10,425	8,025	6,391	5,222	4,353	3,689	3,168	2,752	2,414	2,136	1,903	1,707	1,540	1,396	1,272	1,164
	q_{Rk} (L/200)	24,848	14,379	9,055	6,066	4,261	3,106	2,334	1,797	1,414	1,132	0,920	0,758	0,632	0,533	0,453	0,388
0,8	q_{Rd} (c<1.5h)	11,612	8,916	7,085	5,778	4,810	4,070	3,491	3,029	2,654	2,346	2,089	1,872	1,688	1,529	1,393	1,273
	q_{Rd} (c≥1.5h)	11,612	8,916	7,085	5,778	4,810	4,070	3,491	3,029	2,654	2,346	2,089	1,872	1,688	1,529	1,393	1,273
	q_{Rk} (L/200)	27,158	15,717	9,897	6,630	4,657	3,395	2,551	1,965	1,545	1,237	1,006	0,829	0,691	0,582	0,495	0,424
0,88	q_{Rd} (c<1.5h)	13,602	10,404	8,241	6,703	5,565	4,699	4,023	3,485	3,049	2,691	2,393	2,142	1,929	1,747	1,589	1,452
	q_{Rd} (c≥1.5h)	13,602	10,404	8,241	6,703	5,565	4,699	4,023	3,485	3,049	2,691	2,393	2,142	1,929	1,747	1,589	1,452
	q_{Rk} (L/200)	30,919	17,893	11,268	7,549	5,302	3,865	2,904	2,237	1,759	1,408	1,145	0,944	0,787	0,663	0,563	0,483
1	q_{Rd} (c<1.5h)	16,790	12,774	10,072	8,160	6,753	5,685	4,855	4,196	3,664	3,227	2,865	2,561	2,303	2,083	1,893	1,727
	q_{Rd} (c≥1.5h)	16,790	12,774	10,072	8,160	6,753	5,685	4,855	4,196	3,664	3,227	2,865	2,561	2,303	2,083	1,893	1,727
	q_{Rk} (L/200)	36,672	21,222	13,364	8,953	6,288	4,584	3,444	2,653	2,086	1,671	1,358	1,119	0,933	0,786	0,668	0,573
1,25	q_{Rd} (c<1.5h)	24,153	18,188	14,220	11,438	9,407	7,878	6,696	5,763	5,014	4,402	3,897	3,474	3,117	2,797	2,510	2,266
	q_{Rd} (c≥1.5h)	24,153	18,188	14,220	11,438	9,407	7,878	6,696	5,763	5,014	4,402	3,897	3,474	3,117	2,797	2,510	2,266
	q_{Rk} (L/200)	48,730	28,200	17,759	11,897	8,356	6,091	4,576	3,525	2,773	2,220	1,805	1,487	1,240	1,044	0,888	0,761

Explanatory note:

q_{Ed} (c<1,5h)	design resistance [kN/m²]	end support width at least 40 mm, end support at distance at least 40 mm clear from a free end internal support width at least 120 mm
q_{Ed} (c≥1,5h)	design resistance [kN/m²]	end support width at least 40 mm, end support at distance at least 1.5 x h_w (web height) clear from a free end internal support width at least 120 mm
q_{Ek} (δ≤L/200)	characteristics load that meets the serviceability limit for deflection of L/200 [kN/m²]	