

**Characteristics**

Graepel-Special 8-8 has a C-shaped, canted contour. For this surface, rows in longitudinal direction alternate with embossed and debossed holes (d = 8 mm). The open area for standard grating widths is approximately 6 %. Graepel-Special 8-8 offers an excellent anti-skid effect and displacement as well as some drainage effect. The maximum embossed field is 460 mm.

**Application**

Due to its small holes, this special perforation has proven its value also in public areas with pedestrian traffic, e.g. for trench bridges, but also in commercial use such as in canteen kitchens and butcheries.

**Options**

- The standard edge perforation may be omitted.

	Dimensions	Graepel-Special 8-8
Material thickness	DD 11 raw	1.5   2.0   2.5   3.0 mm
	DD 11 hot-dip galvanized   DX 51 D pre-galvanized Stainless steel EN AW-5754	1.5   2.0   2.5   3.0 mm 2.0   2.5   3.0 mm 2.0   2.5   3.0 mm
Dimensions	Lengths (L) up to length divider	12,000 mm**** 30 mm
	Standard grating widths' (B) DD 11   DX 51 D   Stainless steel   EN AW-5754 Width divider	100 to 300 mm in steps of 50 mm 50 mm
	Heights (H)	40   50   75 mm

\* Other dimensions on request.

Anti-slip values		
Material	Evaluation of anti-slip	Displacement
DD 11 hot-dip galvanized	R 11	V 10



Further details on the perforation on our website

Grating width [mm]	Weight per meter for Graepel-Special 8-8 for material thickness D [in kg/m]																	
	2.0			2.5			3.0			2.0			2.5			3.0		
	DD 11**/ Stainless steel Height [mm]	EN AW-5754 Height [mm]	EN AW-5754 Height [mm]	DD 11**/ Stainless steel Height [mm]	EN AW-5754 Height [mm]	EN AW-5754 Height [mm]	DD 11**/ Stainless steel Height [mm]	EN AW-5754 Height [mm]	EN AW-5754 Height [mm]	DD 11**/ Stainless steel Height [mm]	EN AW-5754 Height [mm]	EN AW-5754 Height [mm]	DD 11**/ Stainless steel Height [mm]	EN AW-5754 Height [mm]	EN AW-5754 Height [mm]	DD 11**/ Stainless steel Height [mm]	EN AW-5754 Height [mm]	EN AW-5754 Height [mm]
150	4.0	4.3	5.1	1.4	1.5	1.7	4.9	5.3	6.3	1.7	1.8	2.2	5.7	6.2	7.4	2.0	2.1	2.6
200	4.7	5.0	5.8	1.6	1.7	2.0	5.8	6.2	7.2	2.0	2.1	2.5	6.9	7.4	8.6	2.4	2.5	2.9
250	5.5	5.8	6.6	1.9	2.0	2.3	6.8	7.2	8.2	2.3	2.5	2.8	8.0	8.5	9.7	2.8	2.9	3.3
300	6.3	6.6	7.4	2.2	2.3	2.5	7.7	8.1	9.1	2.7	2.8	3.1	9.2	9.7	10.9	3.2	3.3	3.7

**Conversion of the replacement load F<sub>q</sub> from the table into a distributed load Q**

with:

$$Q = \frac{10^6 \times F_q}{B \times L}$$

Q = Distributed load for a grating [kN/m<sup>2</sup>]  
 F<sub>q</sub> = Replacement load from table with reference to the support width [kN]  
 B = Grating width [mm]  
 L = Support length [mm]

**Legend**  
 \* Available only up to a length of 3,000 mm  
 \*\* Values also apply for DX 51 D

\*\*\* For gratings smaller than 200 mm, the lump load is added to the neighboring gratings corresponding to the portion of the load area.  
 \*\*\*\* Hot-dip galvanized gratings = L/max. 6,000 mm

■ = Color coding for load values of stock items

	Uniformly distributed load		Replacement load F <sub>q</sub> [in kN] for uniformly distributed load (numerical values apply for single grating)											Concentrated load									Load F <sub>q</sub> [in kN] for concentrated load (numerical values apply for single grating)								
	H [mm]	D [mm]	Support length L [mm]											Support length L [mm]																	
DD 11, DX 51 D	40	2.0	8.491	5.660	4.245	3.396	2.830	2.084	1.595	1.260	1.021	0.844	0.709	5.307	3.266	2.358	1.846	1.516	1.286	1.002	0.791	0.640	0.529	0.444							
		40	2.5	10.177	6.784	5.088	4.071	3.392	2.498	1.912	1.511	1.224	1.011	0.850	6.360	3.914	2.827	2.212	1.817	1.542	1.201	0.948	0.767	0.634	0.532						
	40	3.0	11.706	7.804	5.853	4.682	3.902	2.873	2.200	1.738	1.408	1.164	0.978	7.316	4.502	3.252	2.545	2.090	1.774	1.382	1.091	0.883	0.729	0.612							
	50	2.0	11.551	7.701	5.775	4.620	3.850	3.300	2.700	2.134	1.728	1.428	1.200	7.219	4.443	3.209	2.511	2.063	1.750	1.520	1.339	1.084	0.895	0.752							
	50	2.5	13.931	9.287	6.965	5.572	4.644	3.980	3.257	2.574	2.085	1.723	1.448	8.707	5.358	3.870	3.028	2.488	2.111	1.833	1.615	1.307	1.080	0.907							
	50	3.0	16.124	10.749	8.062	6.450	5.375	4.607	3.771	2.979	2.413	1.994	1.676	10.078	6.202	4.479	3.505	2.879	2.443	2.122	1.869	1.513	1.250	1.050							
	75	2.0	20.543	13.696	10.272	8.217	6.848	5.870	5.136	4.565	4.109	3.735	3.175	12.840	7.901	5.706	4.466	3.668	3.113	2.703	2.389	2.140	1.938	1.771							
	75	2.5	24.996	16.664	12.498	9.998	8.332	7.142	6.249	5.555	4.999	4.545	3.864	15.623	9.614	6.943	5.434	4.464	3.787	3.289	2.907	2.604	2.358	2.155							
	75	3.0	29.192	19.461	14.596	11.677	9.731	8.341	7.298	6.487	5.838	5.308	4.513	18.245	11.228	8.109	6.346	5.213	4.423	3.841	3.394	3.041	2.754	2.517							
EN AW-5754	40	2.0	6.434	3.494	1.965	1.258	0.874	0.642	0.491	0.388	0.314	0.260	0.218	4.021	2.259	1.252	0.796	0.551	0.404	0.309	0.244	0.197	0.163	0.137							
	40	2.5	7.705	4.185	2.354	1.507	1.046	0.769	0.588	0.465	0.377	0.311	0.262	4.816	2.705	1.500	0.953	0.660	0.483	0.370	0.292	0.236	0.195	0.164							
	40	3.0	8.854	4.810	2.705	1.731	1.202	0.883	0.676	0.534	0.433	0.358	0.301	5.534	3.109	1.724	1.096	0.758	0.556	0.425	0.335	0.271	0.224	0.188							
	50	2.0	8.779	5.852	3.336	2.135	1.483	1.089	0.834	0.659	0.534	0.441	0.371	5.487	3.376	2.125	1.351	0.935	0.685	0.524	0.413	0.335	0.276	0.232							
	50	2.5	10.579	7.053	4.021	2.573	1.787	1.313	1.005	0.794	0.643	0.532	0.447	6.612	4.069	2.562	1.628	1.127	0.826	0.630	0.498	0.403	0.333	0.280							
	50	3.0	12.236	8.157	4.651	2.977	2.067	1.519	1.163	0.919	0.744	0.615	0.517	7.647	4.706	2.963	1.884	1.303	0.955	0.731	0.576	0.467	0.385	0.324							
	75	2.0	15.694	10.463	7.847	5.676	3.941	2.896	2.217	1.752	1.419	1.173	0.985	9.809	6.036	4.359	3.412	2.485	1.821	1.392	1.099	0.890	0.735	0.617							
	75	2.5	19.086	12.724	9.543	6.903	4.794	3.522	2.697	2.131	1.726	1.426	1.199	11.929	7.341	5.302	4.149	3.022	2.215	1.694	1.337	1.082	0.894	0.751							
	75	3.0	22.278	14.852	11.139	8.059	5.597	4.112	3.148	2.487	2.015	1.665	1.399	13.924	8.568	6.188	4.843	3.528	2.586	1.977	1.561	1.263	1.043	0.876							
Stainless steel	40	2.0	9.299	6.199	4.650	3.720	2.836	2.084	1.595	1.260	1.021	0.844	0.709	5.812	3.577	2.583	2.022	1.661	1.311	1.002	0.791	0.640	0.529	0.444							
	40	2.5	11.146	7.431	5.573	4.458	3.400	2.498	1.912	1.511	1.224	1.011	0.850	6.966	4.287	3.096	2.423	1.990	1.571	1.201	0.948	0.767	0.634	0.532							
	40	3.0	12.821	8.547	6.410	5.128	3.911	2.873	2.200	1.738	1.408	1.164	0.978	8.013	4.931	3.561	2.787	2.289	1.807	1.382	1.091	0.883	0.729	0.612							
	50	2.0	12.651	8.434	6.326	5.060	4.217	3.527	2.700	2.134	1.728	1.428	1.200	7.907	4.866	3.514	2.750	2.259	1.917	1.665	1.339	1.084	0.895	0.752							
	50	2.5	15.257	10.172	7.629	6.103	5.086	4.254	3.257	2.574	2.085	1.723	1.448	9.536	5.868	4.238	3.317	2.725	2.312	2.008	1.615	1.307	1.080	0.907							
	50	3.0	17.660	11.773	8.830	7.064	5.887	4.925	3.771	2.979	2.413	1.994	1.676	11.037	6.792	4.906	3.839	3.154	2.676	2.324	1.869	1.513	1.250	1.050							
	75	2.0	22.500	15.000	11.250	9.000	7.500	6.429	5.625	5.000	4.500	3.778	3.175	14.062	8.654	6.250	4.891	4.018	3.409	2.960	2.616	2.344	2.123	1.940							
	75	2.5	27.377	18.251	13.688	10.951	9.126	7.822	6.844	6.084	5.475	4.598	3.864	17.110	10.529	7.605	5.951	4.889	4.148	3.602	3.183	2.852	2.583	2.360							
	75	3.0	31.972	21.315	15.986	12.789	10.657	9.135	7.993	7.105	6.394	5.371	4.513	19.983	12.297	8.881	6.950	5.709	4.844	4.207	3.718	3.330	3.016	2.756							

Lump load	Maximum possible lump load F [in kN] (numerical values apply for DD 11)		
	Load area 200 x 200 mm		
Grating width B [mm]	Material thickness [mm]		
	2.0	2.5	3.0
100***	3.24	4.76	6.73
150***	1.61	2.37	3.35
200	1.00	1.47	2.08
250	0.73	1.08	1.52
300	0.60	0.88	1.24

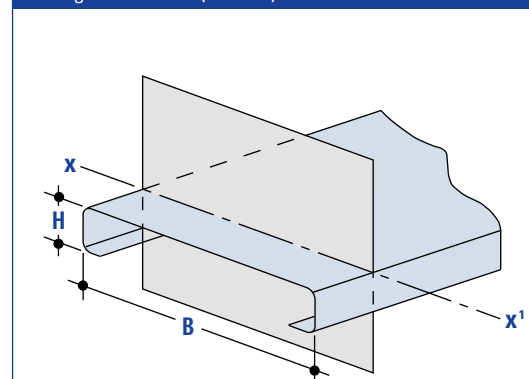
**Note concerning lump load**

The values are calculated for gratings which are supported over their whole length. For a given span width, the values stated in this lump load table must not exceed those given in the concentrated load table.

For stainless steel, the values in the table must be multiplied by a factor of 1.04 or for EN AW 5754 by a factor of 0.75.

**Moments of inertia and section modulus**

Grating cross-sections (axis X-X')



Bend height H [mm]	Material thickness D [mm]	Moment of inertia I <sub>x</sub> [mm <sup>4</sup> ]	Minimum section modulus W <sub>y</sub> [mm <sup>3</sup> ]
40	2.0	79131.71	3777.77
	2.5	94855.39	4528.02
	3.0	109117.91	5208.37
50	2.0	133952.05	5139.48
	2.5	161569.45	6198.33
	3.0	187034.38	7174.33
75	2.0	354345.73	9140.53
	2.5	431204.48	11121.78
	3.0	503650.99	12988.73

**Order information**

Graepel-Special 8-8 (except for DD 11 hot-dip galvanized) is available up to a length of 12,000 mm. Please note that grating lengths over 6,000 mm are difficult to handle and cost intensive due to their high weight.

Upon request, the gratings are cut to length. Please specify the required length when ordering. Please take account of the length divider of 30 mm.

Hot-dip galvanized gratings are hot-dip galvanized after sawing to ensure