



Polyester GRP Flooring Loading Capacities		Design Standard		BS 4592-0: 2012	BS 4592-0: 2012	BS 4592-0: 2006	NR/L3/CIV/030	
		UDL		7.5 kN/m <sup>2</sup>	5 kN/m <sup>2</sup>	5 kN/m <sup>2</sup>	Pedestrian Load	Trolley Load
		Patch Load		1.5 kN	1.5 kN	1.0 kN	5.62 kN/m <sup>2</sup> (Incl snow)	7.92 kN/m <sup>2</sup> (Incl snow)
		Contact Area		200 x 200	200 x 200	300 x 300	300 x 300	300 x 300
Flooring Type	Suppliers Code	Panel Width	Manufacturer	Maximum Clear Span	Maximum Clear Span	Maximum Clear Span	Maximum Clear Span	Maximum Clear Span
25 Deep Moulded Flowgrate		1220	China / CP	489	560	560	N/A	N/A
38 Deep Moulded Flowgrate		1220	China / CP	775	887	887	N/A	N/A
51 Deep Moulded Flowgrate		1220	China / CP	983	1125	1125	N/A	N/A
25 Deep Flowtread	I-40100	1000	ChinaGrate	895	895	1195	N/A	N/A
25 Deep Flowtread	I-4010	1000	Creative	954	954	1248	N/A	N/A
38 Deep Flowtread	I-40150	1000	ChinaGrate	1482	1515	1697	N/A	N/A
38 Deep Flowtread	I-4015	1000	Creative	1548	1616	1772	N/A	N/A
25 Deep Flowtread	I-50100	1000	ChinaGrate	847	847	1124	N/A	N/A
25 Deep Flowtread	I-5010	1000	Creative	904	904	1174	N/A	N/A
38 Deep Flowtread	I-50150	1000	ChinaGrate	1397	1437	1598	N/A	N/A
38 Deep Flowtread	I-5015	1000	Creative	1458	1533	1669	N/A	N/A
25 Deep Flowtread	I-60100	1000	ChinaGrate	784	784	1044	N/A	N/A
25 Deep Flowtread	I-6010	1000	Creative	835	835	1090	N/A	N/A
38 Deep Flowtread	I-60150	1000	ChinaGrate	1296	1328	1484	N/A	N/A
38 Deep Flowtread	I-6015	1000	Creative	1353	1418	1549	N/A	N/A
50 Deep Flowtread	T-33200	1000	ChinaGrate	1695	1942	1941	N/A	N/A
50 Deep Flowtread	T3320	1000	Creative	1770	2020	2020	N/A	N/A
50 Deep Flowtread	T-50200	1000	ChinaGrate	1538	1686	1761	N/A	N/A
50 Deep Flowtread	T-5020	1000	Creative	1606	1800	1838	N/A	N/A
Solid Flowgrip	GR202	500	Creative	1230	1408	1408	N/A	N/A
Slotted Flowgrip	GR202	500	Creative	1184	1355	1355	N/A	N/A
Tufdek	Gr303	305	Creative	1409	1565	1565	N/A	N/A
Superpanel	CP150	520	Creative	2330	2586	2586	2107	1513
Superdeck	GR250	609	Creative	3495	3880	3880	4060	3350
Bridgedeck	PA004	457	Creative	3480	3860	3860	4040	3010

All capacities are based upon uncut panel widths

\* Apparent low capacity is due to panel width being equal to patch load width



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		UDL		7.5 kN/m <sup>2</sup>	5 kN/m <sup>2</sup>	5 kN/m <sup>2</sup>
		Patch Load		1.5 kN	1.5 kN	1.0 kN
		Contact Area		200 x 200	200 x 200	300 x 300
Flooring Type	Suppliers Code	Panel Width	Manufacturer	Maximum Clear Span	Maximum Clear Span	Maximum Clear Span
25 Deep Moulded Flowgrate		1220	ChinaGrate	505	578	578
38 Deep Moulded Flowgrate		1220	ChinaGrate	800	915	915
51 Deep Moulded Flowgrate		1220	ChinaGrate	1015	1150	1150
25 Deep Flowtread	I-40100	1000	ChinaGrate	935	935	1234
38 Deep Flowtread	I-40150	1000	ChinaGrate	1530	1585	1753
25 Deep Flowtread	I-50100	1000	ChinaGrate	888	888	1160
38 Deep Flowtread	I-50150	1000	ChinaGrate	1442	1500	1650
25 Deep Flowtread	I-60100	1000	ChinaGrate	822	822	1078
38 Deep Flowtread	I-60150	1000	ChinaGrate	1338	1394	1532
50 Deep Flowtread	T-33200	1000	ChinaGrate	1750	2000	2000
50 Deep Flowtread	T-50200	1000	ChinaGrate	1587	1770	1817

All capacities are based upon uncut panel widths

Polyester														
Maximum clear spans for UDL excluding patch load with deflection limited to L/200														
Load	GR202 Solid Flowgrip	GR202 Slotted Flowgrip	I-40100 Flowtread	I-40150 Flowtread	I-50100 Flowtread	I-50150 Flowtread	I-55100 Flowtread	I-55150 Flowtread	I-60100 Flowtread	I-60150 Flowtread	I-60177 Flowtread	25 Deep Flowgrate	38 Deep Flowgrate	51 Deep Flowgrate
1.5 kN/m <sup>2</sup>	2075	2019	1786	2390	1680	2285	1622	2225	1560	2160	2432	837	1325	1680
3.0 kN/m <sup>2</sup>	1665	1608	1415	2010	1332	1895	1287	1830	1237	1760	2045	664	1052	1334
5.0 kN/m <sup>2</sup>	1408	1356	1195	1698	1123	1598	1085	1542	1044	1484	1738	560	887	1125
7.5 kN/m <sup>2</sup>	1230	1184	1044	1483	982	1397	948	1348	912	1296	1519	489	775	983
Maximum clear spans for BS4592-0: 2012 patch load with deflection limited to L/200														
1.5 kN on 200 sq	1365	1355	895	1515	847	1435	789	1335	784	1329	1594	560	887	1125
Phenolic														
Maximum clear spans for UDL excluding patch load with deflection limited to L/200														
Load			I-40100 Flowtread	I-40150 Flowtread	I-50100 Flowtread	I-50150 Flowtread	I-55100 Flowtread	I-55150 Flowtread	I-60100 Flowtread	I-60150 Flowtread	I-60177 Flowtread	25 Deep Flowgrate	38 Deep Flowgrate	51 Deep Flowgrate
1.5 kN/m <sup>2</sup>			1844	2447	1734	2340	1674	2278	1610	2210	2490	864	1368	1735
3.0 kN/m <sup>2</sup>			1463	2058	1375	1956	1327	1889	1276	1815	2095	686	1085	1376
5.0 kN/m <sup>2</sup>			1234	1753	1160	1650	1120	1594	1077	1530	1795	578	916	1162
7.5 kN/m <sup>2</sup>			1078	1530	1014	1442	978	1390	940	1336	1567	505	800	1015
Maximum clear spans for BS4592-0: 2012 patch load with deflection limited to L/200														
1.5 kN on 200 sq			938	1545	888	1503	826	1400	822	1394	1635	578	916	1162

Maximum span for any grating in accordance with US Coastguard Specification is limited to 44" (1117)



Polyester GRP Stair Tread Loading Capacities				BS 4592-0: 2012 EN 14122: 2001	NR/L3/CIV/020 One Load	EC1-2: 2003 NA-2.45.1 One Load	BS 4592-4: 1992 One Load
UDL 5 kN/m <sup>2</sup>			Patch Load Contact Area	Up to 3 x 1.5 kN 100 x 100	2 kN 200 x 200	2 kN 100 x 100	1.5 kN 150 x 150
Flooring Type	Suppliers Reference	Manufacturer	Nosing Bar	Maximum Span	Maximum Span	Maximum Span	Maximum Span
Gr202 Solid FlowGrip	GR202	Creative	38 x 38 x 5 Box	1147	1115	994	1389
Gr202 Solid FlowGrip	GR202	Creative	38 x 38 x 6.3 Box	1165	1130	1005	1400
GR 202 Solid FlowGrip	GR202	Creative	51 x 51 x 6.35 Box	1200	1350	1250	1595
GR 202 Solid FlowGrip	GR202	Creative	51 x 51 x 6.3 + 38 x 38 x 6 Box	1242	1466	1366	1690
GR 202 Solid FlowGrip	GR202	Creative	63.5 x 63.5 x 6.35 Box	1326	1655	1550	1800
GR 202 Solid FlowGrip	GR202	Creative	76 x 76 x 6.3 Box	1515	1985 *	1920 *	2150
GR 202 Solid FlowGrip	GR202	Creative	89 x 89 x 9.5 Box	1730	2480	2410	2700
CP064 Tread	CP064	Creative	51 x 51 x 6.35 Box	1420	2295	1770	2020
CP064 Tread	CP064	Creative	51 x 51 x 6.3 + 38 x 38 x 6 Box	1457	1944 *	1832 *	2078
CP064 Tread	CP064	Creative	76 x 76 x 6.3 Box	1615	2290	2210	2480
CP064 Closed Tread	CP064	Creative	51 x 51 x 6.35 Box + 6.35 thick flat sheet	1900	N/A	N/A	N/A
38 Deep Moulded FlowGrate		China / CP	38 x 38 x 5 Box	610	535	528	746
38 Deep Moulded FlowGrate		China / CP	38 x 38 x 6.3 Box	627	550	543	769
51 Deep Moulded FlowGrate		China / CP	51 x 51 x 3.2 Box	694	605	600	851
51 Deep Moulded FlowGrate		China / CP	51 x 51 x 6.35 Box	830	724	718	1015
51 Deep Moulded FlowGrate		China / CP	51 x 51 x 6.3 + 38 x 38 x 6 Box	933	812	808	1142
38 Deep FlowTread	I-40150	ChinaGrate	38 x 38 x 5 Box	680	617	587	847
38 Deep FlowTread	I-4015	Creative	38 x 38 x 5 Box	725	655	625	905
38 Deep FlowTread	I-40150	ChinaGrate	38 x 38 x 6.3 Box	720	650	624	895
38 Deep FlowTread	I-4015	Creative	38 x 38 x 6.3 Box	768	690	665	957
38 Deep FlowTread	I-40150	ChinaGrate	51 x 51 x 6.3 + 38 x 38 x 6 Box	1201	1290	1276	1580
38 Deep FlowTread	I-4015	Creative	51 x 51 x 6.3 + 38 x 38 x 6 Box	1200	1210	1196	1514

Note! NR/L3/CIV/020 makes reference to EN14122

\* Stair widths between 1800 & 2000 should be avoided.



Phenolic GRP Stair Tread Loading Capacities				BS 4592-0: 2012 EN 14122: 2001	NR/L3/CIV/020	EC1-2: 2003 NA-2.45.1	BS 4592-4: 1992
UDL 5 kN/m <sup>2</sup>			Patch Load Contact Area	Up to 3 x 1.5 kN 100 x 100	One Load 2 kN 200 x 200	One Load 2 kN 100 x 100	One Load 1.5 kN 150 x 150
Flooring Type	Suppliers Reference	Manufacturer	Nosing Bar	Maximum Span	Maximum Span	Maximum Span	Maximum Span
38 Deep Moulded FlowGrate		ChinaGrate	38 x 38 x 5 Box	640	560	555	785
38 Deep Moulded FlowGrate		ChinaGrate	38 x 38 x 6.3 Box	655	575	570	805
51 Deep Moulded FlowGrate		ChinaGrate	51 x 51 x 3.2 Box	725	635	630	890
51 Deep Moulded FlowGrate		ChinaGrate	51 x 51 x 6.35 Box	870	755	750	1065
38 Deep FlowTread	I-40150	ChinaGrate	38 x 38 x 5 Box	712	645	618	890
38 Deep FlowTread	I-40150	ChinaGrate	38 x 38 x 6.3 Box	755	680	655	940

Note! NR/L3/CIV/020 makes reference to EN14122

\* Stair widths between 1800 & 2000 should be avoided.

Version	Date	Description
2.9	7-Dec-15	51 x 51 x 6.35 box with 38 x 38 x 6.35 box fitted inside added (Stiffened nosing bar).
2.8	16-Sep-15	Phenolic Flowgrate data modified in acc with Lancs Uni tests July 15.
2.7	11-Sep-15	PA004 Snow Load modified in acc with EC1-3
2.6	14-Jul-15	Phenolic Flowtread stair data revised in acc with Lancs Uni tests May 15.
2.5	24-Jun-15	Polyester stair tread data revised in acc with Lancs Uni tests May 15.
2.4	29-May-15	Revised in acc with Lancs Uni tests May 2015 (GRP Flooring calcs ver 5.1) Phenolic chart added.
2.3	15-Apr-15	EN14122 loading combined with BS4592. Rc5510a revised by NR/L3/CIV/020
2.2	20-Mar-15	GR202 & CP064 Nosing Bar changed to 76 x 76 x 6.3 Box
2.1	19-Nov-14	Separate properties included for ChinaGrate FlowTread products. Updated to suit property data.
2.0	29-Sep-14	Gr202 Slotted Flowgrip added
1.9	16-Sep-14	PA004 revised acc to EN124 Test Data
1.8	23-Apr-14	Revised acc to GRP flooring calcs ver 3.8
1.7	13-Nov-13	CP064 & CP150 added
1.6	11-Nov-13	Revised acc to GRP flooring calcs ver 3.3
1.5		Flowtread data added
1.4	21-Feb-13	Revised acc to GRP flooring calcs ver 3.1
1.3	8-Feb-13	Revised acc to GRP flooring calcs ver 3.0
1.2	27-Jul-12	GR250 Deflection criteria modified to reflect CP deflection tests of 19-Jul-12
1.1	3-May-12	Reduced E value for GR202 Flowgrip
1.0	12-Dec-11	Revisions to accomodate BS 4592-0:2012.