



User information on the restraint system

Pro Lash Tec 3.38+

Basic Info

Restraint System for Load Securing / Rückhaltesystem zur Ladungssicherung
In combined transport according to CTU-Code / im kombinierten Verkehr gemäß CTU-Code



Sea area A, B, C
Sea area A, B, C



The basis for the specification of the restraint forces is the IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units as of 2014. The owner of the container can provide you with information about the actual load values. Since the load-bearing capacity of the lashing points in the container can vary depending on the manufacturer, we recommend the use of the (R) lashing systems according to the G&H GmbH Rothschenk loading instructions. The retention forces listed in the table are based on the acceleration values mentioned in the Code of Practice in Chapter 5, Table 5.3 and the possible coefficients of friction with different material pairings. To determine the coefficients of friction that occur during your transports, you can refer to the information in the EN 121915-12011-06 table. Vertical movements of the load units may require additional safety measures to prevent damage to the load units. When loading, observe the maximum payload and the permissible load distribution.

Notes on loading:

Safety instructions for the user:

- Use the protective clothing required by the risk assessment of your workplace.
- The (R) lashing systems should only be used by trained personnel or in accordance with the loading instructions prepared by G&H GmbH Rothschenk.
- The belts of the (R) lashing systems are under high tension during loading and unloading. Make sure you don't get hurt by the belt buckles when cutting the straps.
- If you have any questions, please contact G&H GmbH Rothschenk.

Requirements for the container:

- The container must be checked according to the CTU code and safe for transport.
- The container floor must be undamaged, swept clean and free of oils or greases.
- The lashing points used in the container to secure the load must not be damaged.

Cargo requirements:

- The load units must be able to absorb the forces that occur during transport.
- The load units should be stable during loading and unloading.
- Since the load units can be subjected to punctual loads during transport, edge protectors may have to be used for sensitive load units.

Maximum load weight to be secured in kg per bilateral (R)lashing at lashing point strength in the container of 1000 daN = (R) Red Lash 3.38+ then 6000 daN BC						
	Street		Railroad	Sea Area A	Sea Area B	Sea Area C
μ/FG	0.8 FG	0.5 FG	0.5 FG / Cz 0.7	0.4 FG / Cz 0.5	0.4 FG / Cz 0.3	0.4 FG / Cz 0.2
0,1	8570	15000	13953	17142	16216	15780
0,2	10000	20000	16666	20000	17647	16660
0,3	12000	30000	20689	24000	19354	17640
0,4	15000	*	27272	30000	21428	18750
0,5	20000	*	40000	40000	24000	20000
0,6	30000	*	*	60000	27272	21428
Maximum load weight to be secured in kg per bilateral (R)lashing at lashing point strength in the container of 1500 daN = (R) Red Lash 3.38+ then 9000 daN BC						
	Street		Railroad	Sea Area A	Sea Area B	Sea Area C
μ/FG	0.8 FG	0.5 FG	0.5 FG / Cz 0.7	0.4 FG / Cz 0.5	0.4 FG / Cz 0.3	0.4 FG / Cz 0.2
0,1	12857	22500	20930	25714	24324	23684
0,2	15000	30000	25000	30000	26470	25000
0,3	18000	45000	31034	40000	29032	26470
0,4	22500	*	40909	60000	32142	28125
0,5	30000	*	60000	120000	36000	30000
0,6	45000	*	*	*	40909	32142
Maximum load weight to be secured in kg per bilateral (R)lashing at lashing point strength in the container of 2000 daN = (R) Red Lash 3.38+ then 12000 daN BC						
	Street		Railroad	Sea Area A	Sea Area B	Sea Area C
μ/FG	0.8 FG	0.5 FG	0.5 FG / Cz 0.7	0.4 FG / Cz 0.5	0.4 FG / Cz 0.3	0.4 FG / Cz 0.2
0,1	17140	30000	27906	34284	32432	31560
0,2	20000	40000	33333	40000	35294	33320
0,3	24000	60000	41379	48000	38708	35280
0,4	30000	*	*	60000	42856	37500
0,5	40000	*	*	*	48000	40000
0,6	60000	*	*	*	54544	42856

*The maximum load weight is directly related to the maximum payload and the permissible load distribution of the CTU or the coefficient of friction is higher than the coefficient of acceleration.