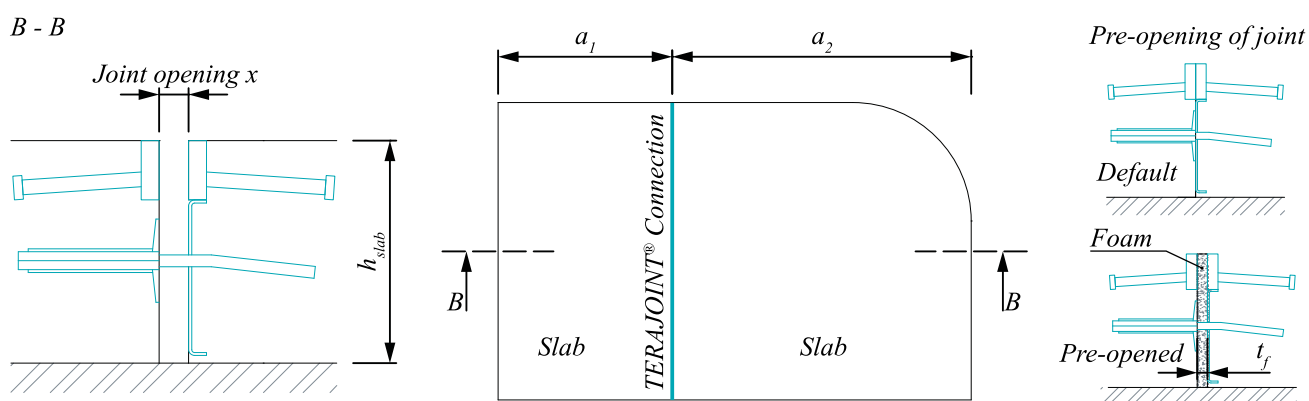


Appendix A – TERAJOINT® Design form

Basic dimensions

Thickness of the slab h_{slab} =		mm	
Joint opening x =		mm	(recommended value 0 ~ 20 mm, maximum allowed value 30 mm)
Pre-opening of joint: Thickness of foam t_f =		mm	(default value 0 mm, available 5/10/15 mm)
Type of Peikko flooring product =			TERAJOINT® for joint opening ≤ 15 mm or TERAJOINT® Strong for joint opening ≤ 30 mm
Maximum length of slab A_{max} =		m	(maximum length of slab perpendicular to TERAJOINT® connection) - maximum A_1 or A_2
Difference of temperatures of slab Δt =		°C	Example 1: +10°C to -15°C $\Rightarrow t = -25^\circ\text{C}$ Example 2: +10°C to 40°C $\Rightarrow t = 30^\circ\text{C}$



Material options

Concrete grade of slab =		C20/25 ~ C40/50
Partial safety factor for concrete γ_c =		recommended value = 1.50
Version of TERAJOINT® =		Standard, HDG, Stainless or Acid proof
Partial safety factor for steel γ_s =		recommended value = 1.15
Modulus of subgrade reaction k =		N/mm ³ (based on soil type)

Soil type	k value [N/mm ³]	
	Lower value	Upper value
Fine or slightly compacted sand	0.015	0.030
Well compacted sand	0.050	0.100
Very well compacted sand	0.100	0.150
Loam or clay (moist)	0.030	0.060
Loam or clay (dry)	0.080	0.100
Clay with sand	0.080	0.100
Crushed stone with sand	0.100	0.150
Coarse crushed stone	0.200	0.250
Well compacted crushed stone	0.200	0.300

Loads

Permanent loads

Characteristic permanent load $g_k =$ kN/m^2

Partial safety factor for permanent load $\gamma_g =$ Recommended value = 1.35

Imposed loads

Characteristic imposed load $q_k =$ kN/m^2

Partial safety factor for imposed load $\gamma_q =$ recommended value = 1.50

Point load

Characteristic value of point load $Q_p =$ kN

Partial safety factor for point load $\gamma_{Qp} =$ recommended value = 1.50

Dynamic loads (forklift)

Partial safety factor for dynamic load $\gamma_{Qk} =$ recommended value = 1.60

Dynamic magnification factor $\varphi =$ value 1.4 for pneumatic tires and value 2.0 for solid tires

Characteristic axle load of forklift $Q_k =$ kN based on type of forklift (FL 1~6)

Width of contact area = mm recommended value 200 mm

Distance between middle of contact areas $a =$ mm based on type of forklift (FL 1~6)

Class of forklifts	Axle load Q_k [kN]	Net weight [kN]	Hoisting load [kN]	Width of axle a [mm]	Overall width b [mm]	Overall length l [mm]
FL 1	26	21	10	850	1000	2600
FL 2	40	31	15	950	1100	3000
FL 3	63	44	25	1000	1200	3300
FL 4	90	60	40	1200	1400	4000
FL 5	140	90	60	1500	1900	4600
FL 6	170	110	80	1800	2300	5100

