

必要地耐力

単位 (kN/m²)

容量及び型式記号		土被り(m)																								
		0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	
20m	1	T20-I-A-0.0/1.0	45.8	47.5	49.4	51.2	53.0	54.8	56.6	58.4	60.2	62.0	63.8													
	2	T20-II-A-0.0/1.0	51.4	53.2	55.0	56.8	58.6	60.4	62.2	64.0	65.8	67.6	69.4													
	3	T20-III-A-0.0/1.0	55.2	57.0	58.8	60.6	62.4	64.2	66.0	67.8	69.6	71.4	73.3													
	4	T40-I-A-0.0/1.0	44.8	46.5	48.3	50.2	51.9	53.8	55.6	57.4	59.2	61.0	62.8													
	5	T40-I-A-1.0/1.5											63.1	64.9	66.8	68.5	70.4	72.2								
	6	T40-I-A-1.5/2.3															72.3	74.0	75.9	77.7	79.5	81.3	83.1	84.9	86.7	
	7	T40-II-A-0.0/1.0	52.0	53.8	55.6	57.4	59.2	61.1	62.9	64.7	66.5	68.3	70.1													
	8	T40-II-A-1.0/1.6											70.2	72.0	73.8	75.6	77.4	79.2	81.0							
40m	9	T40-III-A-0.0/1.0	56.4	58.1	60.0	61.8	63.6	65.4	67.2	69.0	70.8	72.6	74.4													
	10	T40-III-A-0.0/1.5	56.4	58.1	60.0	61.8	63.6	65.4	67.2	69.0	70.8	72.6	74.4	76.3	78.1	79.9	81.7	83.5								
	11	T40-I-B-0.0/1.0	50.1	51.9	53.7	55.6	57.4	59.2	61.0	62.8	64.6	66.5	68.3													
	12	T40-I-B-1.0/1.5											68.6	70.4	72.2	74.0	75.8	77.7								
	13	T40-II-B-0.1/1.0		62.3	64.2	66.0	67.8	69.6	71.4	73.2	75.0	76.9	78.7													
	14	T40-I-C-0.0/2.3	46.1	47.8	49.6	51.5	53.2	55.1	56.9	58.7	60.5	62.3	64.1	65.9	67.7	69.5	71.3	73.2	74.9	76.8	78.6	80.4	82.2	84.0	85.8	87.6
	15	T40-II-C-0.0/2.3	52.1	53.9	55.7	57.5	59.3	61.1	62.9	64.7	66.5	68.3	70.2	72.0	73.8	75.6	77.4	79.2	81.0	82.8	84.6	86.4	88.2	90.1	91.8	93.7
	16	T40-III-C-0.1/2.3		57.9	59.7	61.5	63.3	65.1	66.9	68.7	70.5	72.4	74.2	76.0	77.8	79.6	81.4	83.2	85.0	86.8	88.6	90.4	92.3	94.1	95.9	97.7
60m	17	T60-I-A-0.0/1.0	44.1	45.9	47.7	49.5	51.3	53.1	54.9	56.6	58.5	60.3	62.1													
	18	T60-I-A-1.0/1.5											62.4	64.2	66.0	67.7	69.5	71.3								
	19	T60-II-A-0.0/1.0	45.9	47.7	49.5	51.3	53.1	54.9	56.7	58.5	60.3	62.1	63.9													
	20	T60-II-A-1.0/1.5											64.0	65.8	67.6	69.4	71.2	73.0								
	21	T60-III-A-0.0/1.5	48.9	50.7	52.5	54.3	56.1	57.9	59.7	61.5	63.3	65.1	66.9	68.7	70.5	72.2	74.1	75.9								
	22	T60-I-B-0.0/1.0	49.0	50.8	52.6	54.4	56.2	58.0	59.8	61.6	63.4	65.2	67.0													
	23	T60-I-B-1.0/1.5											67.3	69.1	70.9	72.7	74.5	76.3								
	24	T60-II-B-0.1/1.0		54.0	55.8	57.6	59.4	61.2	63.0	64.8	66.6	68.4	70.2													
70m	25	T70-I-A-0.0/1.0	43.9	45.7	47.5	49.3	51.1	52.9	54.7	56.4	58.2	60.0	61.8													
	26	T70-I-A-1.0/1.5											62.1	63.9	65.7	67.5	69.3	71.1								
	27	T70-II-A-0.0/1.0	44.2	45.9	47.7	49.5	51.3	53.1	54.9	56.7	58.5	60.3	62.1													
	28	T70-II-A-1.0/1.5											62.2	64.0	65.8	67.5	69.3	71.1								
	29	T70-III-A-0.0/1.5	46.7	48.5	50.3	52.1	53.9	55.7	57.5	59.2	61.0	62.8	64.6	66.4	68.2	70.0	71.8	73.6								
	30	T70-I-B-0.0/1.0	48.8	50.5	52.3	54.1	55.9	57.7	59.5	61.3	63.1	64.9	66.7													
	31	T70-I-B-1.0/1.5											67.0	68.8	70.6	72.4	74.2	76.0								
	32	T70-II-B-0.1/1.0		51.7	53.5	55.3	57.1	58.9	60.7	62.5	64.3	66.1	67.9													
80m	33	T80-I-A-0.0/1.0	43.8	45.5	47.3	49.1	50.9	52.7	54.5	56.3	58.1	59.9	61.7													
	34	T80-I-A-1.0/1.5											62.0	63.8	65.6	67.3	69.1	70.9								
	35	T80-II-A-0.0/1.0	42.8	44.6	46.4	48.2	50.0	51.8	53.5	55.3	57.1	58.9	60.7													
	36	T80-II-A-1.0/1.5											60.8	62.6	64.4	66.1	67.9	69.7								
	37	T80-III-A-0.0/1.5	45.1	46.8	48.6	50.4	52.2	54.0	55.8	57.6	59.4	61.2	63.0	64.8	66.6	68.3	70.1	71.9								
	38	T80-I-B-0.0/1.0	48.5	50.3	52.1	53.9	55.7	57.5	59.3	61.1	62.9	64.6	66.4													
	39	T80-I-B-1.0/1.5											66.7	68.5	70.3	72.1	73.9	75.7								
	40	T80-II-B-0.1/1.0		50.0	51.8	53.6	55.4	57.2	59.0	60.8	62.6	64.4	66.2													
90m	41	T90-I-A-0.0/1.0	43.7	45.4	47.2	49.0	50.8	52.6	54.4	56.2	57.9	59.7	61.5													
	42	T90-I-A-1.0/1.5											61.8	63.6	65.4	67.2	69.0	70.8								
	43	T90-II-A-0.0/1.0	41.8	43.5	45.3	47.1	48.9	50.7	52.5	54.3	56.0	57.8	59.6													
	44	T90-II-A-1.0/1.5											59.7	61.5	63.3	65.1	66.9	68.6								
	45	T90-III-A-0.0/1.5	43.8	45.5	47.3	49.1	50.9	52.7	54.5	56.3	58.1	59.9	61.6	63.4	65.2	67.0	68.8	70.6								
	46	T100-I-A-0.0/1.0	43.6	45.3	47.1	48.9	50.7	52.5	54.3	56.1	57.8	59.6	61.4													
	47	T100-I-A-1.0/1.5											61.7	63.5	65.3	67.1	68.9	70.7								
	48	T100-II-A-0.0/1.0	40.9	42.7	44.5	46.3	48.0	49.8	51.6	53.4	55.2	57.0	58.8													
100m	49	T100-II-A-1.0/1.5										58.8	60.6	62.4	64.2	66.0	67.8									
	50	T100-III-A-0.0/1.5	42.7	44.5	46.3	48.1	49.9	51.7	53.4	55.2	57.0	58.8	60.6	62.4	64.2	65.9	67.7	69.5								
	51	T100-I-B-0.0/1.0	48.4	50.1	51.9	53.7	55.5	57.3	59.1	60.9	62.7	64.5	66.3													
	52	T100-I-B-1.0/1.5											66.6	68.3	70.1	71.9	73.7	75.5								
	53	T100-II-B-0.1/1.0		48.8	50.6	52.4	54.1	55.9	57.7	59.5	61.3	63.1	64.9													

※ビット部材PH500を2個使用の場合

必要地耐力

必要地耐力の算出は、次の式により求める。

$$\begin{aligned}
 (\text{必要地耐力}) &= \frac{(\text{鉛直荷重})}{(\text{接地面積})} \\
 &= \frac{B+C+D+E+F}{A}
 \end{aligned}$$

A：接地面積 (m²)
 =水槽幅(m)×水槽長(m)

B：土被り荷重 (kN)
 =接地面積(m²)×土被り厚(m)×土の単位体積重量
 (17.7kN/m³)

C：上載荷重 (kN) →I型の場合
 =接地面積(m²)×10 (kN/m²)

D：交通荷重 (kN) →II、III型の場合
 自動車2台の後輪直載の場合について
 検討する。
 交通荷重(kN)=自動車荷重(kN)×0.4×2×1.3×2

E：本体重量 (kN)
 本体、端面、ビット、調整用部材の製品重量合計

F：貯水重量 (kN)
 =水槽の実容量(m³)×水の単位体積重量(9.8kN/m³)