

# EXPANSION TABLES

## Allowance for Thermal Expansion

To allow for thermal expansion and avoid buckling, cut off Millimetres from back of liner according to table

### ***BULK MATERIALS UP TO 50° C***

Liner Temp at Install	BODY LENGTH IN METERS							
	3	5	6	8	9	11	12	14
°C								
50	0	0	0	0	0	0	0	0
44	3	5	5	8	10	10	13	13
38	5	10	13	15	18	20	25	28
32	10	13	18	23	28	33	36	41
27	13	18	25	30	36	43	48	56
21	15	23	30	38	46	53	61	69
16	18	28	36	46	56	64	74	81
10	20	33	43	53	64	74	86	97
5	25	36	48	61	74	86	97	109
0	28	41	56	69	81	97	109	124
-6	30	46	61	76	91	107	122	137
-12	33	51	66	84	102	117	135	150
-18	36	56	74	91	109	127	147	165

### ***BULK MATERIALS UP TO 180° C (hotmix)***

Liner Temp at Install	BODY LENGTH IN METERS							
	3	5	6	8	9	11	12	14
°C								
50	0	0	0	0	0	0	0	0
44	5	8	10	13	13	15	18	20
38	10	13	18	23	28	33	36	41
32	13	20	28	36	41	48	56	61
27	18	28	36	46	56	64	74	81
21	23	36	46	58	69	81	91	104
16	28	41	56	69	81	97	109	124
10	33	48	64	81	97	112	127	145
5	36	56	74	91	109	127	147	165
0	41	61	81	104	124	145	165	185
-6	46	69	91	114	137	160	183	206
-12	51	76	102	127	150	175	201	226
-18	56	81	109	137	165	193	218	246