



21,000 GALLON INSULATED CLOSED-TOP FRAC TANK

EPS Insulation Test Data

www.adlertankrentals.com
800-421-7471

Test results showing water temperature drop inside of Frac Tanks over 72 hours
Comparison of an EPS Insulated Frac Tank with an Un-insulated Frac Tank

DAY 1

WEATHER DATA						
DATE	TIME	TEMP F	TEMP C	DIRECTION	WIND-MPH	WIND CHILL
11/10/12	11:53	16	-9	NNW	18	0
	12:53	18	-9	NNW	17	3
	13:53	16	-9	NNW	20	-1
	14:53	16	-9	NNW	20	-1
	15:53	16	-9	NW	15	1
	16:53	14	-10	NNW	16	-2
	17:53	12	-11	NNW	16	-5
	18:53	12	-11	NW	14	-4
	19:53	10	-12	NNW	9	-3
	20:53	9	-13	NW	9	-4
	21:53	3	-16	W	8	-10
	22:53	3	-16	W	8	-10
	23:53	3	-16	W	6	-8
11/11/12	0:53	0	-18	SSW	5	-11
	1:53	3	-16	SSW	9	-11
	2:53	3	-16	SSW	8	-10
	3:53	3	-16	SSW	10	-12
	4:53	7	-14	SSW	13	-9
	5:53	9	-13	SSW	12	-6
	6:53	9	-13	SSW	12	-6
	7:53	10	-12	SSW	13	-5
	8:53	12	-11	SSW	12	-2
	9:53	14	-10	SSW	12	0
	10:53	16	-9	W	16	1

ACTUAL READINGS (RED)		
TIME	NON-INS TANK TEMP	INS TANK TEMP
15:15	101.0	104.0
	98.9	103.6
	96.7	103.3
	94.6	102.9
	92.4	102.6
22:15	86.0	101.5
	84.5	101.3
	83.0	101.2
	81.5	101.0
	79.9	100.9
	78.4	100.7
	76.9	100.5
	75.4	100.4
	73.9	100.2
	72.4	100.0
	70.9	99.9
7:30	72.0	100.0
	70.9	99.9
	69.8	99.8
	68.7	99.7

NON-INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
15.0	2.14
14.0	1.51

EPS INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
2.5	0.36
1.5	0.16

RESULTS
INSULATED TANK TEMP LOSS AS A % OF NON-INSULATED TANKS TEMP LOSS
17%
14%

DAY 2

WEATHER DATA						
DATE	TIME	TEMP F	TEMP C	DIRECTION	WIND-MPH	WIND CHILL
11/11/12	11:53	18	-8	SW	13	5
	12:53	19	-7	NW	15	5
	13:53	19	-7	NW	14	5
	14:53	19	-7	NW	16	4
	15:53	18	-8	NW	9	7
	16:53	18	-8	NW	9	7
	17:53	16	-9	SSW	10	4
	18:53	14	-10	SSW	13	0
	19:53	14	-10	SSW	14	-1
	20:53	14	-10	SSW	13	0
	21:53	14	-10	SSW	14	-1
	22:53	14	-10	SSW	14	-1
	23:53	10	-15	SSW	5	1
11/12/12	0:53	14	-10	SW	12	0
	1:53	12	-11	SW	13	-3
	2:53	14	-10	SW	14	-1
	3:53	14	-10	SW	14	-1
	4:53	14	-10	SW	7	4
	5:53	16	-9	SW	12	3
	6:53	18	-8	SW	15	4
	7:53	19	-7	SW	15	5
	8:53	25	-4	SW	15	13
	9:53	28	-2	SW	15	6
	10:53	30	-1	SW	17	7

ACTUAL READINGS (RED)		
TIME	NON-INS TANK TEMP	INS TANK TEMP
12:00	67.0	99.5
	66.2	99.4
	65.3	99.3
	64.5	99.2
	63.6	99.1
16:45	63.0	99.0
	62.3	98.9
	61.6	98.7
	60.9	98.6
	60.2	98.4
	59.6	98.3
	58.9	98.2
0:00	58.0	98.0
	57.3	97.9
	56.6	97.7
	55.9	97.6
	55.1	97.4
	54.4	97.2
7:00	53.0	97.0
	52.4	96.9
	51.8	96.9
	51.2	96.8
	50.6	96.7

NON-INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
5.0	1.11
4.0	0.84
5.0	0.69
5.0	0.71

EPS INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
0.5	0.11
0.5	0.11
1.0	0.14
1.0	0.14

RESULTS
INSULATED TANK TEMP LOSS AS A % OF NON-INSULATED TANKS TEMP LOSS
13%
13%
14%
15%

DAY 3

WEATHER DATA						
DATE	TIME	TEMP F	TEMP C	DIRECTION	WIND-MPH	WIND CHILL
11/12/12	11:53	34	1	SW	13	17
	12:53	34	1	SW	14	16
	13:53	36	2	SW	14	18
	14:53	36	2	SW	13	19
	15:53	34	1	SW	10	21
	16:53	32	0	SW	13	14
	17:53	32	0	SW	12	15
	18:53	30	-1	S	8	20
	19:53	32	0	SW	14	13
	20:53	32	0	SW	18	9
	21:53	30	-1	SW	18	6
	22:53	30	-1	SW	14	10
	23:53	30	-1	S	10	16
11/13/12	0:53	27	-3	SSE	7	18
	1:53	28	-2	SE	6	22
	2:53	23	-5	NW	4	23
	3:53	25	-4	Calm	Calm	25
	4:53	28	-2	Calm	Calm	28
	5:53	27	-3	Calm	Calm	27
	6:53	27	-3	SSE	6	21
	7:41	28	-2	SSE	4	28
	7:53	28	-2	S	5	33
	8:53	36	2	S	5	33
	9:53	37	3	SW	9	26
	10:53	39	4	SSW	10	27

ACTUAL READINGS (RED)		
TIME	NON-INS TANK TEMP	INS TANK TEMP
14:30	50.0	96.7
	49.4	96.6
	48.8	96.5
	48.3	96.4
	48.1	96.4
	47.9	96.3
	47.7	96.2
	47.5	96.2
	47.3	96.1
21:45	47.0	96.0
	46.8	95.9
	46.6	95.9
	46.4	95.8
	46.1	95.8
	45.9	95.7
	45.7	95.7
	45.5	95.6
	45.3	95.6
7:00	45.0	95.5
	44.6	95.5
	44.2	95.5
	43.8	95.5
	43.4	95.5

NON-INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
4.5	0.60
1.5	0.21
2.0	0.22

EPS INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
0.5	0.07
0.5	0.07
0.5	0.05

RESULTS
INSULATED TANK TEMP LOSS AS A % OF NON-INSULATED TANKS TEMP LOSS
14%
15%
15%

DAY 4

WEATHER DATA						
DATE	TIME	TEMP F	TEMP C	DIRECTION	WIND-MPH	WIND CHILL
11/13/12	11:53	43	6	SSW	8	35
	12:53	45	7	NW	9	36
	13:53	45	7	SSW	8	37
	14:53	45	7	SSW	6	41
	15:53	43	6	Calm	Calm	43
	16:53	30	-1	Calm	Calm	30
	17:53	27	-3	Calm	Calm	27

ACTUAL READINGS (RED)		
TIME	NON-INS TANK TEMP	INS TANK TEMP
12:00	43.0	95.5
	42.8	95.5
	42.7	95.5
	42.5	95.5
	42.3	95.5
15:00	42.5	95.5
	42.3	95.3
	42.1	95.1
	41.9	94.9
	41.7	94.7
17:30	42.0	95.0

NON-INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
2.0	0.40
0.5	0.07
0.5	0.20

EPS INSULATED TANK	
PERIOD TEMP LOSS	TEMP LOSS / HR
0.0	0.00
0.0	0.00
0.5	0.20

RESULTS
INSULATED TANK TEMP LOSS AS A % OF NON-INSULATED TANKS TEMP LOSS
15%
15%
15%