

# SHOP TANK LINING ESTIMATE SHEET

Customer: \_\_\_\_\_ Date: \_\_\_\_\_  
 Location: \_\_\_\_\_ Dwg No: \_\_\_\_\_  
 Service Conditions: \_\_\_\_\_  
 Rubber Gauge: \_\_\_\_\_ Spec: \_\_\_\_\_ Per: \_\_\_\_\_  
 Description: \_\_\_\_\_  
 Sq. Ft. Area: \_\_\_\_\_ Plus % \_\_\_\_\_ Trim = \_\_\_\_\_ Total Sq. Ft.

**MATERIAL ESTIMATE**

Rubber-Sq. Ft. \_\_\_\_\_ @ \$ \_\_\_\_\_ / sq. ft. = \$ \_\_\_\_\_  
 Cements - \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 TOTAL MATERIAL COST - \$ \_\_\_\_\_

**LABOR ESTIMATE**

	No. of Men	No. of Days	S.T.	O.T.
Unload	_____	_____	_____ hr.	_____ hr.
Inshop Rigging & Handling	_____	_____	_____ hr.	_____ hr.
Blasting	_____	_____	_____ hr.	_____ hr.
Cementing	_____	_____	_____ hr.	_____ hr.
Lining - Straight Work	_____	_____	_____ hr.	_____ hr.
Lining - Outlets	_____	_____	_____ hr.	_____ hr.
Lining - Brackets, Baffles, etc.	_____	_____	_____ hr.	_____ hr.
Curing	_____	_____	_____ hr.	_____ hr.
Inspection	_____	_____	_____ hr.	_____ hr.
Loading	_____	_____	_____ hr.	_____ hr.
Miscellaneous	_____	_____	_____ hr.	_____ hr.
TOTAL LABOR HOURS	_____	_____	S.T. = _____	O.T. = _____
TOTAL LABOR HOURS	_____	_____	D.T. = _____	
Plus _____ % S & A				= \$ _____
Subtotal Labor & S & A				\$ _____
ALL IN COST				\$ _____
PLUS _____ % PROFIT				\$ _____

**FABRICATION**

Fabricator \_\_\_\_\_ Cost \$ \_\_\_\_\_  
 Mark Up \_\_\_\_\_ % \$ \_\_\_\_\_  
 TOTAL METAL COST \$ \_\_\_\_\_  
 Freight \$ \_\_\_\_\_ MU \_\_\_\_\_ = \$ \_\_\_\_\_  
**SUBTOTAL \$ \_\_\_\_\_**

## SECTION 7: ESTIMATING



### EXTERIOR COATING

Blast \_\_\_\_\_ hrs. @ \$ \_\_\_\_\_ hr. \$ \_\_\_\_\_  
 Labor to Apply \_\_\_\_\_ hrs. @ \$ \_\_\_\_\_ hr. \$ \_\_\_\_\_  
 S & A \_\_\_\_\_ % \$ \_\_\_\_\_  
 SUBTOTAL \$ \_\_\_\_\_  
 MATERIAL \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ \$ \_\_\_\_\_

### SOLVENT SUPPLIES

Insol III \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 M E K \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 Toluene \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

### APPLICATION SUPPLIES

Grinding Stones \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Grinding Discs \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 4" Brushes \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 2" Brushes \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Roller Frames \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Roller Covers \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

### MISCELLANEOUS SUPPLIES

5-Gallon Cans \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 1-Gallon Cans \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 1-Quart Cans \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Work Gloves \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Rags/Bundles \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Sand \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

### EXTERIOR COATINGS

Primer Coat \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 Intermediate Coat \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 Top Coat \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

**TOTAL (FRONT) \$** \_\_\_\_\_

**PROFIT** \_\_\_\_\_ % \$ \_\_\_\_\_

**TOTAL \$** \_\_\_\_\_

# FIELD TANK LINING ESTIMATE SHEET

Customer: \_\_\_\_\_ Date: \_\_\_\_\_  
 Location: \_\_\_\_\_ Dwg No: \_\_\_\_\_  
 Service Conditions: \_\_\_\_\_  
 Rubber Gauge: \_\_\_\_\_ Spec: \_\_\_\_\_ Per: \_\_\_\_\_  
 Description: \_\_\_\_\_  
 Sq. Ft. Area: \_\_\_\_\_ Plus % \_\_\_\_\_ Trim = \_\_\_\_\_ Total Sq. Ft.

**MATERIAL ESTIMATE**

Rubber-Sq. Ft. \_\_\_\_\_ @ \$ \_\_\_\_\_ / sq. ft. = \$ \_\_\_\_\_  
 Supplies \_\_\_\_\_  
 Cements - \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 TOTAL MATERIAL COST - \$ \_\_\_\_\_

**LABOR ESTIMATE**

	No. of Men	No. of Days	S.T.	O.T.
Travel Time	_____	_____	_____ hr.	_____ hr.
Unload	_____	_____	_____ hr.	_____ hr.
Inshop Rigging & Handling	_____	_____	_____ hr.	_____ hr.
Blasting	_____	_____	_____ hr.	_____ hr.
Cementing	_____	_____	_____ hr.	_____ hr.
Lining - Straight Work	_____	_____	_____ hr.	_____ hr.
Lining - Outlets	_____	_____	_____ hr.	_____ hr.
Lining - Brackets, Baffles, etc.	_____	_____	_____ hr.	_____ hr.
Curing	_____	_____	_____ hr.	_____ hr.
Inspection	_____	_____	_____ hr.	_____ hr.
Loading	_____	_____	_____ hr.	_____ hr.
Miscellaneous	_____	_____	_____ hr.	_____ hr.
TOTAL LABOR HOURS	_____	_____	@ \$ _____	S.T. = _____
TOTAL LABOR HOURS	_____	_____	@ \$ _____	O.T. = _____
TOTAL LABOR HOURS	_____	_____	@ \$ _____	D.T. = _____
Plus _____ % S & A				= \$ _____
Subtotal Labor & S & A				\$ _____
ALL IN COST				\$ _____
PLUS _____ % PROFIT				\$ _____

**TRANSPORTATION**

LODGING: \_\_\_\_\_ men @ \$ \_\_\_\_\_ /man X \_\_\_\_\_ /nights \$ \_\_\_\_\_  
 LIVING EXPENSES: \_\_\_\_\_ men @ \$ \_\_\_\_\_ /man X \_\_\_\_\_ /nights \$ \_\_\_\_\_  
 MILEAGE: 1-Ton Truck \_\_\_\_\_ miles @ \_\_\_\_\_ /mile \$ \_\_\_\_\_  
 Pick-Up Truck \_\_\_\_\_ miles @ \_\_\_\_\_ /mile \$ \_\_\_\_\_  
 Car \_\_\_\_\_ miles @ \_\_\_\_\_ /mile \$ \_\_\_\_\_  
**SUBTOTAL \$ \_\_\_\_\_**

# SECTION 7: ESTIMATING



## FABRICATION

Fabricator \_\_\_\_\_ Cost \$ \_\_\_\_\_  
 Mark Up \_\_\_\_\_ % \$ \_\_\_\_\_  
 TOTAL METAL COST \$ \_\_\_\_\_  
 Freight \$ \_\_\_\_\_ MU \_\_\_\_\_ = \$ \_\_\_\_\_

## EXTERIOR COATING

Blast \_\_\_\_\_ hrs. @ \$ \_\_\_\_\_ hr. \$ \_\_\_\_\_  
 Labor to Apply \_\_\_\_\_ hrs. @ \$ \_\_\_\_\_ hr. \$ \_\_\_\_\_  
 S & A \_\_\_\_\_ % \$ \_\_\_\_\_  
 SUBTOTAL \$ \_\_\_\_\_  
 MATERIAL \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ \$ \_\_\_\_\_

## SOLVENT SUPPLIES

Insol III \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 M E K \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 Toluene \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

## APPLICATION SUPPLIES

Grinding Stones \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Grinding Discs \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 4" Brushes \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 2" Brushes \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Roller Frames \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Roller Covers \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

## MISCELLANEOUS SUPPLIES

5-Gallon Cans \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 1-Gallon Cans \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 1-Quart Cans \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Work Gloves \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Rags/Bundles \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_  
 Sand \_\_\_\_\_ @ \_\_\_\_\_ = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

## EXTERIOR COATINGS

Primer Coat \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 Intermediate Coat \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_  
 Top Coat \_\_\_\_\_ gal. @ \$ \_\_\_\_\_ / gal. = \_\_\_\_\_

**SUBTOTAL \$** \_\_\_\_\_

**TOTAL (FRONT) \$** \_\_\_\_\_

**PROFIT** \_\_\_\_\_ % \$ \_\_\_\_\_

**TOTAL \$** \_\_\_\_\_

## TABLE OF CONVERSION FACTORS

TO CONVERT	FROM	TO	MULTIPLY BY
Area	Square Feet (ft. <sup>2</sup> )	Square Meters (m <sup>2</sup> )	0.0929
	m <sup>2</sup>	ft <sup>2</sup>	10.764
Volume	Imperial Gallons	Liter	4.55
Imperial Gallons	Imperial Gallons	U.S. Gallons	1.20
Liter	Liter	Imperial Gallons	0.22
4.55	Liter	U.S. Gallons	0.264
	U.S. Gallons	Imperial Gallons	0.833
	U.S. Gallons	Liters	3.785
Area/Volume	ft <sup>3</sup> /Imp. Gallon	m <sup>3</sup> /Liter	0.0204
	ft <sup>3</sup> /U.S. Gallon	m <sup>3</sup> /Imp. Gallon	0.112
	ft <sup>3</sup> /U.S. Gallon	m <sup>3</sup> /Liter	0.0245
	m <sup>3</sup> /Imp. Gallon	m <sup>3</sup> /Liter	0.2197
	m <sup>3</sup> /Imp. Gallon	ft <sup>3</sup> /U.S. Gallon	8.97
	m <sup>3</sup> /Liter	ft <sup>3</sup> /Imp. Gallon	48.93
	m <sup>3</sup> /Liter	ft <sup>3</sup> /U.S. Gallon	40.76
Length	centimeters	inches	0.394
	centimeters	feet	0.0328
	feet	centimeters	30.48
	feet	meters	0.3048
	inches	centimeters	2.54
	meters	feet	3.2808
	microns	mils	0.04
	mils	microns	25.0
Weight	kilograms	pounds	2.2046
	pounds	kilogram	0.4536
Pressure	kilograms/square centimeter	pounds/ square inch	14.22
	pounds/square inch	kilograms/ square centimeter	0.0703

# FIELD TANK LINING ESTIMATE SHEET

TO CONVERT	FROM	TO	CALCULATE
Temperature	Celsius	Fahrenheit	$9/5 (C^{\circ}) + 32$
	Fahrenheit	Celsius	$5/9 (F^{\circ} - 32)$
Film thickness	wet	dry	wet film thickness x percent solids by volume/100
	dry	wet	dry film thickness x 100/percent solids by volume

# LINING AREAS OF TANKS, CARS AND STORAGE TANKS WITH DISHED HEADS

TANK DIA.	TOTAL AREA OF BOTH DISHED ENDS	AREA OF SHELL OR STRAIGHT PART OF TANK PER INCH OF LENGTH
IN.	SQ. FT.	SQ. FT.
24	8.84	.524
25	9.49	.545
26	10.16	.567
27	10.88	.589
28	11.61	.611
29	12.38	.633
30	13.14	.655
31	13.93	.676
32	14.75	.698
33	15.61	.720
34	16.50	.742
35	17.41	.764
36	18.28	.785
37	19.25	.807
38	20.20	.829
39	21.20	.851
40	22.19	.873
41	23.22	.894
42	24.31	.916
43	25.37	.938
44	26.46	.960
45	27.61	.982
46	28.75	1.004
47	29.94	1.025
48	31.13	1.047

TANK DIA.	TOTAL AREA OF BOTH DISHED ENDS	AREA OF SHELL OR STRAIGHT PART OF TANK PER INCH OF LENGTH
IN.	SQ. FT.	SQ. FT.
49	32.32	1.069
50	33.60	1.091
51	34.85	1.112
52	36.16	1.134
53	37.47	1.156
54	38.77	1.178
55	40.18	1.200
56	41.55	1.221
57	42.97	1.244
58	44.40	1.265
59	45.83	1.287
60	47.34	1.309
67	58.35	1.462
68	59.99	1.484
69	61.66	1.505
70	63.35	1.527
71	65.12	1.549
72	66.86	1.571
73	68.67	1.593
74	70.46	1.614
75	72.33	1.636
76	74.15	1.658
77	76.06	1.680
78	77.95	1.702
79	79.89	1.724

# LINING AREAS OF TANKS, CARS AND STORAGE TANKS WITH DISHED HEADS

TANK DIA.	TOTAL AREA OF BOTH DISHED ENDS	AREA OF SHELL OR STRAIGHT PART OF TANK PER INCH OF LENGTH
IN.	SQ. FT.	SQ. FT.
80	81.82	1.745
81	83.77	1.767
82	85.80	1.789
83	87.78	1.811
84	89.87	1.833
85	91.92	1.854
86	93.97	1.876
87	96.11	1.898
88	98.22	1.920
89	100.43	1.942
90	102.57	1.963
91	104.75	1.985
92	107.02	2.007
93	109.24	2.029
94	111.48	2.051
95	113.82	2.073
96	116.12	2.094
97	118.51	2.116
98	120.84	2.138
99	123.20	2.160
100	125.58	2.182
101	128.06	2.203
102	130.58	2.225
103	133.03	2.247
104	135.59	2.269

TANK DIA.	TOTAL AREA OF BOTH DISHED ENDS	AREA OF SHELL OR STRAIGHT PART OF TANK PER INCH OF LENGTH
IN.	SQ. FT.	SQ. FT.
105	138.08	2.291
106	140.60	2.313
107	143.24	2.334
108	145.88	2.355
120	176.13	2.619
126	196.80	2.750