



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

Section 7: Estimating 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

Supplies _____

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. = _____
TOTAL LABOR HOURS _____			@ \$ _____	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 _____ = \$ _____

EXTERIOR COATING

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

SUBTOTAL \$ _____



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

SUPPLIES

Solvents

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 _____ @ _____ = _____

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 \$ _____



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

Section 7: Estimating 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.

SUPPLIES: _____ (From Back)

MATERIAL ESTIMATE

Supplies _____

Rubber-Sq. Ft. _____ @ \$ _____ / sq. ft. = \$ _____

Cements - _____ gal. @ \$ _____ / gal. = _____
 _____ gal. @ \$ _____ / gal. = _____
 _____ gal. @ \$ _____ / gal. = _____
 _____ gal. @ \$ _____ / gal. = _____

TOTAL MATERIAL COST - \$ _____

	No. of Men	No. of Days	S.T.	O.T.
LABOR ESTIMATE				
Travel Time			-	-
Unload & Staging			-	-
Inshop Rigging & Handling			-	-
Blasting			-	-
Cementing			-	-
Lining - Straight Work			-	-
Lining - Outlets			-	-
Lining - Brackets, Baffles, etc.			-	-
Curing			-	-
Inspection			-	-
Loading			-	-
Miscellaneous			-	-
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				\$ _____

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 \$ _____

TOTAL \$ _____



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

Section 7: Estimating
 Field Tank Lining Estimate Sheet
 Page 2

MISC. EXPENSES: (Rental, Etc.) _____ \$ _____

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. @ \$ _____ /gal.			\$ _____
PROFIT _____ %			\$ _____
			\$ _____
			\$ _____
			\$ _____

TOTAL COATINGS
TOTAL JOB ESTIMATE

SUPPLIES

Solvents

Insol III _____ gal. @ \$ _____ / gal. =			_____
M E K _____ gal. @ \$ _____ / gal. =			_____
Tolubene _____ gal. @ \$ _____ /gal. =			_____
		Subtotal \$	_____

Application Supplies

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

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 SUPPLIES \$ _____



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

Section 7: Estimating Table of Conversion Factors

TO CONVERT	FROM	TO	MULTIPLY BY
Area	Square Feet (ft. ²)	Square Meters (m ²)	0.0929
	m ²	ft ²	10.764
Volume	Imperial Gallons	Liter	4.55
	Imperial Gallons	U.S. Gallons	1.20
	Liter	Imperial Gallons	0.22
	Liter	U.S. Gallons	0.264
	U.S. Gallons	Imperial Gallons	0.833
	U.S. Gallons	Liters	3.785
Area/Volume	ft ³ /Imp. Gallon	m ³ /Liter	0.0204
	ft ³ /U.S. Gallon	m ³ /Imp. Gallon	0.112
	ft ³ /U.S. Gallon	m ³ /Liter	0.0245
	m ³ /Imp. Gallon	m ³ /Liter	0.2197
	m ³ /Imp. Gallon	ft ³ /U.S. Gallon	8.97
	m ³ /Liter	ft ³ /Imp. Gallon	48.93
	m ³ /Liter	ft ³ /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
pounds		kilogram	0.4536
Pressure	kilograms/ square centimeter	pounds/ square inch	14.22
	pounds/square inch	kilograms/ square centimeter	0.0703
TO CONVERT	FROM	TO	CALCULATE
Temperature	Celsius	Fahrenheit	9/5 (C°) + 32
	Fahrenheit	Celsius	5/9 (F°-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



INNOVATION TO MAKE IT FIRST, QUALITY TO MAKE IT LAST.

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	TANK DIA.	TOTAL AREA OF BOTH DISHED ENDS	AREA OF SHELL OR STRAIGHT PART OF TANK PER INCH OF LENGTH
		SQ. FT.			SQ. FT.
IN.	SQ. FT.	SQ. FT.	IN.	SQ. FT.	SQ. FT.
24	8.84	.524	67	58.35	1.462
25	9.49	.545	68	59.99	1.484
26	10.16	.567	69	61.66	1.505
27	10.88	.589	70	63.35	1.527
28	11.61	.611	71	65.12	1.549
29	12.38	.633	72	66.86	1.571
30	13.14	.655	73	68.67	1.593
31	13.93	.676	74	70.46	1.614
32	14.75	.698	75	72.33	1.636
33	15.61	.720	76	74.15	1.658
34	16.50	.742	77	76.06	1.680
35	17.41	.764	78	77.95	1.702
36	18.28	.785	79	79.89	1.724
37	19.25	.807	80	81.82	1.745
38	20.20	.829	81	83.77	1.767
39	21.20	.851	82	85.80	1.789
40	22.19	.873	83	87.78	1.811
41	23.22	.894	84	89.87	1.833
42	24.31	.916	85	91.92	1.854
43	25.37	.938	86	93.97	1.876
44	26.46	.960	87	96.11	1.898
45	27.61	.982	88	98.22	1.920
46	28.75	1.004	89	100.43	1.942
47	29.94	1.025	90	102.57	1.963
48	31.13	1.047	91	104.75	1.985
49	32.32	1.069	92	107.02	2.007
50	33.60	1.091	93	109.24	2.029
51	34.85	1.112	94	111.48	2.051
52	36.16	1.134	95	113.82	2.073
53	37.47	1.156	96	116.12	2.094
54	38.77	1.178	97	118.51	2.116
55	40.18	1.200	98	120.84	2.138
56	41.55	1.221	99	123.20	2.160
57	42.97	1.244	100	125.58	2.182
58	44.40	1.265	101	128.06	2.203
59	45.83	1.287	102	130.58	2.225
60	47.34	1.309	103	133.03	2.247
61	48.82	1.331	104	135.59	2.269
62	50.37	1.353	105	138.08	2.291
63	51.90	1.374	106	140.60	2.313
64	53.45	1.396	107	143.24	2.334
65	55.07	1.418	108	145.88	2.355
66	56.88	1.440	120	176.13	2.619
			126	196.80	2.750