

## 2554 ACADIANA LANE: HOW WELL DOES ARMOR GLASS PERFORM ?

		BASE: NO ARMOR GLASS			EAST WALL: INSTALLED 10/11			WEST WALL INSTALLED: 5/12			FIRST FULL YEAR OF A G®			SECOND YEAR OF A G®		
		2010			2011			2012			2013			2014		
#	Month	AVG HIGH T, DEG F.	KW-HR	COST, \$	AVG HIGH T, DEG F.	KW-HR	COST, \$	AVG HIGH T, DEG F.	KW-HR	COST, \$	AVG HIGH T, DEG F.	KW-HR	COST, \$	AVG HIGH T, DEG F.	KW-HR	COST, \$
1	Jan	74	992	\$126.34	66	1044	\$132.64	65	1321	\$178.43	70	754	\$95.04	61	997	\$113.37
2	Feb	60	879	\$123.47	60	844	\$107.22	70	854	\$117.85	66	643	\$82.25	63	774	\$110.30
3	Mar	59	945	\$125.31	66	959	\$121.35	68	756	\$105.80	69	712	\$90.53	63	703	\$102.21
4	Apr	71	869	\$115.68	76	947	\$119.89	78	770	\$107.66	74	666	\$84.95	68	721	\$105.48
5	May	79	1238	\$163.40	84	1546	\$199.49	83	967	\$134.11	77	681	\$86.77	77	681	\$86.77
6	Jun	87	1950	\$255.46	88	1701	\$212.55	88	1312	\$180.47	84	1156	\$144.41	84	1156	\$144.41
7	Jul	91	2390	\$298.14	95	2240	\$272.63	93	1782	\$219.65	93	1759	\$231.41	93	1759	\$231.41
8	Aug	101	2635	\$328.33	96	2550	\$309.87	91	1872	\$230.52	93	1779	\$233.88	93	1779	\$233.88
9	Sep	96	2626	\$327.20	99	2573	\$312.64	95	1853	\$228.22	94	1974	\$255.51	94	1974	\$255.51
10	Oct	89	2091	\$261.91	94	2060	\$264.50	90	1645	\$205.22	91	1867	\$242.67	91	1867	\$242.67
11	Nov	85	1466	\$184.83	83	1272	\$158.41	82	936	\$118.41	82	976	\$134.11	82	976	\$134.11
12	Dec	74	992	\$126.34	75	1020	\$138.60	70	754	\$95.84	70	797	\$113.37	61	797	\$113.37
<b>TOTAL</b>		<b>81</b>	<b>19,073</b>	<b>\$2,436.41</b>	<b>82</b>	<b>18,756</b>	<b>\$2,349.79</b>	<b>81</b>	<b>14,822</b>	<b>\$1,922.18</b>	<b>80</b>	<b>13,764</b>	<b>\$1,794.90</b>	<b>78</b>	<b>14,184</b>	<b>\$1,873.49</b>
\$/KW-HR				\$0.128			\$0.125			\$0.130			\$0.130			\$0.132
% 2010 COST				100%			98%			102%			104%			102%
AVG KW-HR				1589			1563			1235			1147			1182

5,309	KW-HR (Base) - KW-HR (Armor Glass)
<b>\$692.32</b>	COST SAVINGS from KW_HR saved
1.021	ESCALATION FACTOR: KW-HR (Base) - TO - KW-HR (Armor Glass)
<b>\$706.76</b>	ADJUSTED SAVINGS - Savings escalated by Factor

**12/31/13**

YEAR	COMPOUND	SAVINGS	COMPOUND	RUNING TOTAL
1	1.000	\$706.76	\$706.76	\$706.76
2	1.021	\$706.76	\$721.50	\$1,428.26
3	1.042	\$721.50	\$751.91	\$2,180.17
4	1.064	\$751.91	\$799.94	\$2,980.11
5	1.086	\$799.94	\$868.79	<b>\$3,848.90</b>
6	1.109	\$868.79	\$963.24	<b>\$4,812.14</b>
7	1.132	\$963.24	\$1,090.24	\$5,902.38
8	1.155	\$1,090.24	\$1,259.71	\$7,162.09
		<b>\$4,555.66</b>	<b>\$7,162.09</b>	

**NOTE:**

- 1) Escalation of KW-HR will likely increase, not remain constant
- 2) Compounding effect will reduce payback period significantly
- 3) As the data becomes available, the projected cost numbers will be updated
  - i) A 1.0 % increase in rate increase is \$200.00 in year 6 cumulative.
- 3) As the data becomes available, the projected cost numbers will be updated
- 4) Actual bills are available for inspection

30% of KW-HR is A/C	19,073 x 60% =	7,629 kw-hr
Loss to Windows		
Saving 50%		3,815 kw-hr
2010 - 2012		4,889 kw-hr
KW_HR in \$		<b>\$637.55 / year</b>
KW_HR @ 50% savings		<b>\$497.44 / year</b>

**NOTE:**

Window energy loss at 20% fenestration ratio (window / wall area) is 30-35%. This home has a 40% fenestration ratio. This means the KW-HR loss is above 40% loss for windows. To be conservative, 40% is used for loss factor. Theoretical calculation is within \$25.00 of actual cost.