



COOLANT

Performance Sheet

Categories		Units	Without Double skin (base case)	With Double skin	With Double skin & ventilation	With Double skin & water flow	With Double skin, ventilation and water flow
Cooling Load	Total AC Tonnage	TR	34.5	30.8	28.1	28.8	26.8
	Capital cost saving		-	11%	18%	16%	22%
EPI	Cooling		88.28	74.74	70.29	63.79	60.04
	Fans		10.51	8.36	7.23	7.21	6.17
	Lighting	kWh / m2-yr	4.99	4.86	4.86	4.85	4.85
	Equipment		4.53	4.41	4.41	4.42	4.41
	Total		108.31	92.37	86.79	80.27	75.47
	Operational Savings		-	15%	20%	26%	30%
Water	Annual requirement	kL/yr	0	0	0	210	210.2
Carbon	Incremental footprint	kgCO2e	-	43285	43285	43285	43285
	Annual savings	kgCO2e/yr	-	64959	87666	114182	133746
	Payback	yr	-	0.7	0.5	0.4	0.3



Costs	Electricity bills	INR/yr	1,858,221	1,584,708	1,489,099	1,377,453	1,295,080
	Annual bill savings	INR/yr	-	273,513	369,122	479,717	562,089
	Payback for façade	yr	-	15.1	11.2	8.6	7.4

Monthly consumption	January		4629	3245	2724	3455	2652
	February		8445	6004	4886	5694	4757
	March		18450	15075	12513	11922	12184
	April		32912	29033	24522	23363	23876
	May		41119	37529	31850	30344	31011
	June	kWh	32520	29439	24781	26297	24128
	July		22298	19717	16661	17888	16222
	August		20029	17434	14649	15805	14264
	September		23713	20162	16971	18209	16524
	October		14942	11722	9632	10608	9378
	November		8492	5649	4521	5316	4402
	December		4730	3080	2556	3281	2489
	Total		232278	198089	166265	172182	161885
	Summer		92480	81637	68885	65629	67070
	Monsoon		98559	86752	73062	78198	71137
	Shoulder		41238	29700	24319	28354	23678



Seasonal EPI	Summer	43.1	38.1	32.1	30.6	31.3
	Summer Savings		12%	26%	29%	27%
	Monsoon	46	40.4	34.1	36.5	33.2
	Monsoon Savings		12%	26%	21%	28%
	Shoulder	19.2	13.8	11.3	13.2	11
	Shoulder Savings		28%	41%	31%	43%