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THERMO ACOUSTIC INSULATION PANELS

Thermal Insulation

Polyester Non woven

Fabric code	GSM	Thickness - Mentioned (mm)	Thickness - Tested at 2 kPa pressure (mm)	Thermal Resistance (deg C. m2 / W)	Thermal insulation (clo)
1	1100	50	34.3	0.9178	5.82
2	950	50	23.82	0.9897	6.25
3	750	12	9.52	0.4868	2.83
4	1200	25	22.27	0.6748	4.28
5	1100	25	21.2	0.817	3.86
6	1000	25	21.35	0.6738	4.34
7	1650	50	52.22	1.0208	6.63
8	1700	50	49.32	1.3165	8.49
9	2200	50	52.66	0.7418	4.79
10	2550	50	53.81	1.4758	9.5
11	2000	50	54.7	0.7621	4.91

Note: Air permeability experiments for samples with thickness of 50 mm are not feasible in physical testing laboratory because the testing instruments are not suitable materials with thickness greater than 10 mm.

Acoustic

Polyester Non woven

Fabric code	GSM	Thickness - Mentioned (mm)	Sound absorption coeff. (SAC, 6300 Hz)	Noise reduction coeff. (NRC)
1	1100	50	0.911	0.31
2	950	50	0.881	0.2
3	750	12	0.822	0.16
4	1200	25	0.943	0.39
5	1100	25	0.897	0.28
6	1000	25	0.846	0.21
7	1650	50	0.977	0.43
8	1700	50	0.815	0.5
9	2200	50	0.972	0.58
10	2550	50	0.984	0.61
11	2000	50	0.958	0.54

Note: Air permeability experiments for samples with thickness of 50 mm are not feasible in physical testing laboratory because the testing instruments are not suitable materials with thickness greater than 10 mm.

Sound Absorption Test

Sound absorption coefficient (SAC)											
GSM	1100	950	750	1200	1100	1000	1650	1700	2200	2550	2000
Thickness mentioned(mm)	50	50	12	25	25	25	50	50	50	50	50
Frequency (Hz)											
63	0.131	0.09	-0.057	0.09	0.056	0.053	0.197	0.098	0.019	0.188	0.455
80	0.115	0.03	0.047	0.03	0.036	0.179	0.26	0.12	0.124	0.265	0.37
100	0.109	0.072	0.028	0.072	0.059	0.21	0.255	0.095	0.187	0.242	0.346
125	0.116	0.082	0.05	0.082	0.071	0.194	0.237	0.104	0.206	0.235	0.342
200	0.147	0.115	0.04	0.115	0.077	0.193	0.25	0.168	0.244	0.262	0.342
250	0.159	0.132	0.06	0.132	0.094	0.185	0.248	0.199	0.275	0.292	0.339
315	0.202	0.165	0.068	0.165	0.115	0.19	0.224	0.242	0.308	0.311	0.377
400	0.242	0.17	0.073	0.17	0.135	0.194	0.29	0.295	0.376	0.384	0.425
500	0.274	0.205	0.084	0.205	0.153	0.201	0.386	0.347	0.443	0.458	0.484
630	0.333	0.261	0.117	0.261	0.196	0.23	0.47	0.432	0.537	0.561	0.572
800	0.372	0.33	0.124	0.33	0.233	0.263	0.568	0.51	0.65	0.677	0.684
1000	0.438	0.4	0.154	0.4	0.295	0.309	0.669	0.599	0.752	0.79	0.784
1250	0.5	0.438	0.176	0.438	0.359	0.34	0.742	0.658	0.792	0.864	0.834
1600	0.557	0.546	0.207	0.546	0.451	0.374	0.811	0.709	0.812	0.91	0.861
2000	0.607	0.638	0.251	0.638	0.56	0.457	0.831	0.747	0.825	0.904	0.869
2500	0.623	0.712	0.308	0.712	0.676	0.555	0.797	0.742	0.804	0.862	0.842
3150	0.613	0.735	0.39	0.735	0.782	0.654	0.755	0.725	0.798	0.848	0.834
4000	0.655	0.719	0.494	0.719	0.844	0.716	0.805	0.775	0.863	0.929	0.903
5000	0.714	0.713	0.602	0.713	0.851	0.729	0.889	0.831	0.898	0.957	0.93
6300	0.738	0.774	0.716	0.774	0.825	0.697	0.86	0.815	0.881	0.919	0.9
NRC	0.37	0.35	0.14	0.35	0.28	0.29	0.52	0.47	0.57	0.61	0.61

Acoustics-Determination of sound absorption coefficient and impedance in impedance tubes
Specimen is tested under Temperature: 24.0°C Humidity: 50.0% Atmospheric Pressure: 101325.0Pa
And the other parameter, Density of Air: 1.2kg/m^3 Velocity of Sound: 345.622m/s
Characteristic impedance of Air: 404.183Pa*s/m

Results below are according to ISO 10534-2:1998 (GB/T 18696.2-2002)

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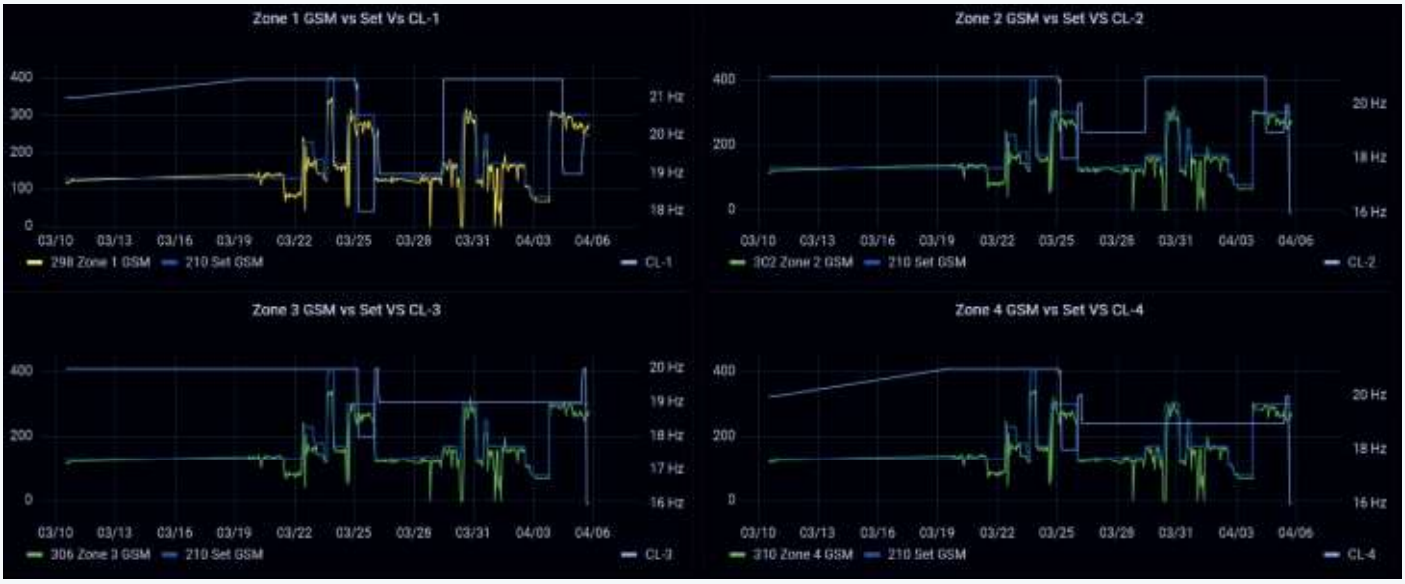
How do we do it?

Production is professionally managed as per industry 4.0 standards. The human resource is also placed out as per industry 4.0 standards starting from the managers, the shift in charge, machine operators and workers assisted by a maintenance team.



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