



innovative solutions

3 mts Cube Smoke Density Apparatus As per IEC:61034-1 Model No SSI 517 SDIE SCA



An ISO 9001:2008 Company
GMP compliant

Smoke Density Apparatus is used for measuring & observing the relative amount (Density) of smoke produced by the burning (combustion) or decomposition of Plastic, Cables etc. under controlled conditions.

The sample is burned under controlled conditions by alcohol fire. A light source and a photo receptor is placed on either side of the chamber, and the percentage of light absorbed is displayed through a linear amplifier digital electronic photometer with 0 to 100% absorbance scale.

The instrument is manufactured as per the IEC specification and also confirms various other international standards.



Mixing Fan



Photo Cell



Light Source



Exhaust Fan



Fuel Tray &
Sample Stand

S.S. INSTRUMENTS PVT. LTD.

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The Instruments Consists of

- ✦ A Single walled chamber 3m x 3m 3 m Chamber (powder Coated for long life). The chamber is constructed on Columns and 2mm thick GI Sheets. This ensure no rust formation on the chamber.
- ✦ Door to access the chamber from inside with glass window
- ✦ Alcohol Tray as per specifications
- ✦ Sample Stand
- ✦ Mixing fan inside the chamber along with Sheet shielding as per specifications
- ✦ Constant DC power supply to produce 12 V DC for the light source
- ✦ Light source 12 V DC to form light spot of 1.5m dia on the photometric system wall.
- ✦ Electronic Photometric System to capture and display the % Transmission of light. Consist of Photo Cell and Receptor
- ✦ A to D Card and interface
- ✦ Specially developed Software to capture % transmission from the photometric system. After the test the results can be displayed in tabular / graph form



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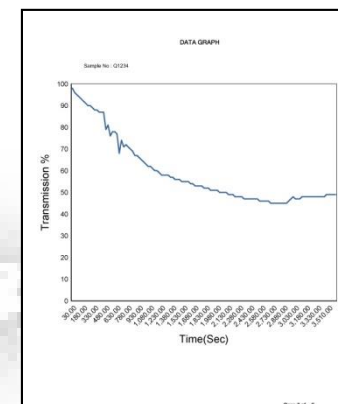
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Test Result	
For Smoke Density Test as per IEC 61034	
Test Parameters	
Company Name :	ssipl
Name of the Operator :	sanj
Discription of the Sample :	Testing
Sample No :	Q1234
No Of Cables :	2
Cable Diameter :	0.000
Test Date :	11/26/2015
Test Time :	60.00Min
Test Start Time:	16:31:39
Test End Time:	17:31:11
Total No of Transmission Reading :	120
Final Test Result	
Reason For Test End :	TEST TIME OVER
Initial Transmittance (Io) :	97.68 %
Final Transmittance (It) :	48.95 %
Avg Transmittance :	58.809 %
Measured Absorbance:	0.300
$A_m = \text{Log}_{10}(I_o/I_t)$	
Standard Absorbance:	1.350
$A_o = (A_m \times \text{Cube Factor} / \text{No Of Cables})$	
Test Result Remarks :	Final Tesing For The system The smoke desntiy is now ready for dispatch



Sample No. C1274	Time (in Sec)	% Transmittance
	30.000	97.680
	40.000	96.354
	50.000	95.138
	120.000	94.365
	150.000	92.628
	180.000	91.824
	210.000	91.005
	240.000	89.834
	270.000	89.013
	300.000	88.840
	330.000	88.177
	360.000	87.738
	390.000	87.162
	420.000	86.961
	450.000	86.830
	480.000	78.594
	510.000	81.120
	540.000	76.133
	570.000	77.880
	600.000	77.267
	630.000	77.017
	660.000	67.624
	690.000	74.254
	720.000	70.820
	750.000	72.205
	780.000	71.250
	810.000	69.834
	840.000	68.729
	870.000	67.402
	900.000	66.740
	930.000	65.929
	960.000	64.791
	990.000	63.949
	1020.000	63.086
	1050.000	61.989
	1080.000	61.878

Case 2

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