

BCAL Module Dimensions and Weights

Z.Papandreou, February 19, 2006

No of modules

48

Basic Dimensions (cm)			
Length	Outer radius	Inner radius	Aluminum
410	90	65	2.54

Calorimeter volume ratios			
Pb	SciFi	Glue	Total
0.37	0.49	0.14	1

Volumes (cm ³)				
Pb	SciFi	Glue	PbSciFi	Aluminum
1631928.477	2161202.577	617486.4507	4410617.505	580587.8234
Total check:			4410617.505	

Material Densities (g/cm ³)				
Pb	SciFi	Glue	PbSciFi	Aluminum
11.35	1.032	1.2	5	2.7

Component masses (gr)				
Pb	SciFi	Glue	PbSciFi	Aluminum
18522388.21	2230361.06	740983.7408	21493733.01	1567587.123

BCAL Mass	
Total Mass (kg)	23061.32
Total Mass (metric tons)	23.06
Mass per module (metric tons)	0.480

Numbers do not include bolts, fasteners or other such support.

BCAL Number of Fibers	
Scint Area	5271.225799 cm ²
Fiber Area	0.007853982 cm ²
No of Fibers	671153.3136
Km of Fibers	2751.728586

Numbers do not include contingency (spares)