

## Distribution of Houses by Predominant Materials of Roof and Wall and Level of Damage Risk

**Table No. : KL 06**

**State : KERALA**

**PALAKKAD**

Wall / Roof		Census Houses		Level of Risk under								Flood Prone Area in %
		No. of Houses	%	EQ Zone				Wind Velocity m/s				
				V	IV	III	II	55 & 50	47	44 & 39	33	
				Area in %				Area in %				
						100				100		15.5
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	144,167	18.1									
	Urban	35,894	4.5									
	Total	180,061	22.6			M				M		VH
A2 - Stone Wall not packed with mortar	Rural	45,393	5.7									
	Urban	9,987	1.3									
	Total	55,380	7.0			M				L		VH
Total - Category - A		235,441	29.6									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	365,715	45.9									
	Urban	139,318	17.5									
	Total	505,033	63.4			L				L		H/M
Total - Category - B		505,033	63.4									
C1 - Concrete Wall	Rural	10,107	1.3									
	Urban	7,309	0.9									
	Total	17,416	2.2			VL				VL		L/VL
C2 - Wood wall	Rural	3,270	0.4									
	Urban	801	0.1									
	Total	4,071	0.5			VL				M		H
Total - Category - C		21,487	2.7									
X - Other Materials	Rural	29,322	3.7									
	Urban	5,191	0.7									
	Total	34,513	4.4			VL				M		VH
Total - Category - X		34,513	4.3									
TOTAL HOUSES*		796,474										

<b>ROOF</b>												
<b>R1 - Light Weight Sloping Roof</b>	Rural	52,666	6.6									
	Urban	13,195	1.7									
	<b>Total</b>	<b>65,861</b>	<b>8.3</b>			L				H		VH
<b>R2 - Heavy Weight Sloping Roof</b>	Rural	374,730	47.0									
	Urban	91,341	11.5									
	<b>Total</b>	<b>466,071</b>	<b>58.5</b>			L				L		H
<b>R3 - Flat Roof</b>	Rural	170,578	21.4									
	Urban	93,964	11.8									
	<b>Total</b>	<b>264,542</b>	<b>33.2</b>	Damage Risk as per that for the Wall supporting it								
<b>TOTAL HOUSES*</b>		<b>796,474</b>										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **645 mm**

**Housing Category : Wall Types**

**Category - A :** Buildings in field-stone, rural structures, unburnt brick houses, clay houses

**Category - B :** Ordinary brick building; buildings of the large block & prefabricated type, half-timbered structures, building in natural hewn stone

**Category - C :** Reinforced building, well built wooden structures

**Category - X :** Other materials not covered in A,B,C. These are generally light.

**Notes :** 1. Flood prone area includes that protected area which may have more severe damage under failure of protection works. In some other areas the local damage may be severe under heavy rains and choked drainage.

2. Damage Risk for wall types is indicated assuming heavy flat roof in categories A, B and C (Reinforced Concrete) building

3. Source of Housing Data : Census of Housing, GOI, 2011

**Housing Category : Roof Type**

**Category - R1 - Light Weight** (Grass, Thatch, Bamboo, Wood, Mud, Plastic, Polythene, GI Metal, Asbestos Sheets, Other Materials)

**Category - R2 - Heavy Weight** (Tiles, Stone/Slate)

**Category - R3 - Flat Roof** (Brick, Concrete)

EQ Zone V : Very High Damage Risk Zone (MSK > IX)

EQ Zone IV : High Damage Risk Zone (MSK VIII)

EQ Zone III : Moderate Damage Risk Zone (MSK VII)

EQ Zone II : Low Damage Risk Zone (MSK < VI)

Level of Risk : VH = Very High; H = High;

M = Moderate; L = Low; VL = Very Low

\* Total No. of Houses excluding Vacant/Locked Houses