

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

**Table No. : MP 32**

**State : MADHYA PRADESH**

**HOSHANGABAD**

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		
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	74,278	25.1									
	Urban	13,540	4.6									
	Total	87,818	29.7			M				M		
A2 - Stone Wall not packed with mortar	Rural	977	0.3									
	Urban	502	0.2									
	Total	1,479	0.5			M				L		
Total - Category - A		89,297	30.2									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	101,947	34.5									
	Urban	75,252	25.5									
	Total	177,199	60.0			L				L		
Total - Category - B		177,199	60.0									
C1 - Concrete Wall	Rural	1,629	0.6									
	Urban	1,439	0.5									
	Total	3,068	1.1			VL				VL		
C2 - Wood wall	Rural	3,762	1.3									
	Urban	377	0.1									
	Total	4,139	1.4			VL				M		
Total - Category - C		7,207	2.4									
X - Other Materials	Rural	17,891	6.1									
	Urban	3,809	1.3									
	Total	21,700	7.4			VL				M		
Total - Category - X		21,700	7.3									
TOTAL HOUSES*		295,403										

ROOF												
R1 - Light Weight Sloping Roof	Rural	34,805	11.8									
	Urban	20,633	7.0									
	Total	55,438	18.8			L				H		
R2 - Heavy Weight Sloping Roof	Rural	140,434	47.5									
	Urban	24,073	8.1									
	Total	164,507	55.6			L				L		
R3 - Flat Roof	Rural	25,245	8.5									
	Urban	50,213	17.0									
	Total	75,458	25.5	Damage Risk as per that for the Wall supporting it								
TOTAL HOUSES*		295,403										

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. **503 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