

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

Table No. : RJ 02

State : RAJASTHAN

HANUMANGARH

Wall / Roof		Census Houses		Level of Risk under								
		No. of Houses	%	EQ Zone				Wind Velocity m/s				Flood Prone Area in %
				V	IV	III	II	55 & 50	47	44 & 39	33	
								100		100		
WALL												
A1 - Mud & Unburnt Brick Wall	Rural	133,045	29.3									
	Urban	7,774	1.7									
	Total	140,819	31.0					<i>L</i>		<i>H</i>		
A2 - Stone Wall not packed with mortar	Rural	1,866	0.4									
	Urban	573	0.1									
	Total	2,439	0.5					<i>L</i>		<i>M</i>		
Total - Category - A		143,258	31.5									
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	217,127	47.8									
	Urban	85,044	18.7									
	Total	302,171	66.5					<i>VL</i>		<i>M</i>		
Total - Category - B		302,171	66.5									
C1 - Concrete Wall	Rural	415	0.1									
	Urban	223	-									
	Total	638	0.1					<i>VL</i>		<i>VL</i>		
C2 - Wood wall	Rural	106	-									
	Urban	166	-									
	Total	272	-					<i>VL</i>		<i>H</i>		
Total - Category - C		910	0.2									
X - Other Materials	Rural	6,593	1.5									
	Urban	1,155	0.3									
	Total	7,748	1.8					<i>VL</i>		<i>H</i>		
Total - Category - X		7,748	1.7									
TOTAL HOUSES*		454,087										

ROOF												
R1 - Light Weight Sloping Roof	Rural	174,687	38.5									
	Urban	18,932	4.2									
	Total	193,619	42.7					<i>VL</i>		<i>VH</i>		
R2 - Heavy Weight Sloping Roof	Rural	37,882	8.3									
	Urban	14,649	3.2									
	Total	52,531	11.5					<i>VL</i>		<i>M</i>		
R3 - Flat Roof	Rural	146,583	32.3									
	Urban	61,354	13.5									
	Total	207,937	45.8					<i>Damage Risk as per that for the Wall supporting it</i>				
TOTAL HOUSES*		454,087										

Probable Maximum Precipitation at a Station of the district in 24 hrs is 320 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