

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

Table No. : RJ 06

State : RAJASTHAN

ALWAR

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		
				Area in %				Area in %				%	
				49.1	46.3	4.6		100					
WALL													
A1 - Mud & Unburnt Brick Wall	Rural	67,979	7.5										
	Urban	4,757	0.5										
	Total	72,736	8.0		H	M	L			H			
A2 - Stone Wall not packed with mortar	Rural	55,741	6.1										
	Urban	7,366	0.8										
	Total	63,107	6.9		H	M	L			M			
Total - Category - A		135,843	15.0										
B - Burnt Bricks Wall & Stone wall packed with mortar	Rural	592,751	65.3										
	Urban	160,172	17.6										
	Total	752,923	82.9		M	L	VL			M			
Total - Category - B		752,923	83.0										
C1 - Concrete Wall	Rural	1,406	0.2										
	Urban	1,287	0.1										
	Total	2,693	0.3		L	VL	VL			VL			
C2 - Wood wall	Rural	1,775	0.2										
	Urban	461	0.1										
	Total	2,236	0.3		L	VL	VL			H			
Total - Category - C		4,929	0.5										
X - Other Materials	Rural	11,623	1.3										
	Urban	2,280	0.3										
	Total	13,903	1.6		VL	VL	VL			H			
Total - Category - X		13,903	1.5										
TOTAL HOUSES*		907,598											

ROOF		Damage Risk as per that for the Wall supporting it								
		R1 - Light Weight Sloping Roof	Rural	141,017	15.5	M	L	VL	VH	
			Urban	11,484	1.3					
		Total	152,501	16.8						
R2 - Heavy Weight Sloping Roof	Rural	482,962	53.2							
	Urban	87,816	9.7							
	Total	570,778	62.9		M	L	VL		M	
R3 - Flat Roof	Rural	107,296	11.8							
	Urban	77,023	8.5							
	Total	184,319	20.3		Damage Risk as per that for the Wall supporting it					
TOTAL HOUSES*		907,598								

Probable Maximum Precipitation at a Station of the district in one day for arial extent of 1000 sqm. 708 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