SANDSTONE

PARLIAMENT

Sandstone may be defined as a stone made up of grains of quartz and other minerals of fairly uniform size and often smooth and rounded. These grains are held together by a cementing material which may be siliceous or ferruginous. The toughness of sandstone depends mostly on the nature of this cementing material

PRESIDENT HOUSE

RAJASTHAN VIDHAN SABHA BHAWAN

USES

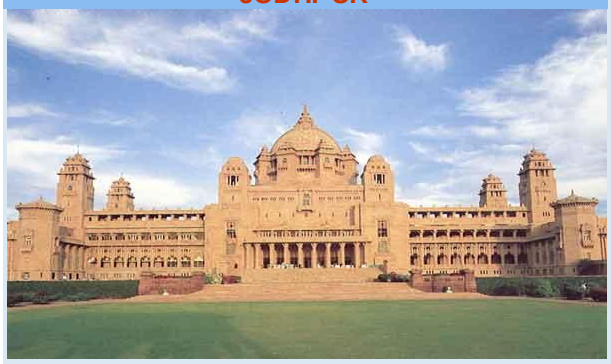
Rajasthan being the largest producer is an important sandstone producing state of India. It is an excellent building stone. This can be chiseled and dressed to a smooth surface in various attractive shapes. The sandstone has a verity of uses such as roofing, flooring, paving, paneling, beams, pillars, arches, doors and window sills, wall facing, fence posts, mile stones etc. It is especially useful for exterior cladding in sea shore buildings due to acid & thermal resistant properties. As such the effect of saline winds is negligible on sandstone. It is also suitable for use in chemical industries as flooring, wall fixing & lining due to its acid and alkali resistant properties. It is also suitable for carving and making windows and jallis. The sandstone is being quarried and used from centuries and a number of historical buildings and monuments such as Budhist Stupas of Sarnath, Red Fort, Sansad Bhawan, Rashtrapati Bhawan, and National Museum , Delhi; Chhitar Palace, Jodhpur etc. are made of sandstone.

Rajasthan Sandstone because of its regular bedding, uniform grain size, suitable nature and durability, has been used extensively not only in Rajasthan but also in Northern India and even exported to Canada, Japan, and Middle East countries.

Recently some entrepreneurs have tried for cutting and polishing of sandstone. Due to the

straight/curved lines of bedding/current bedding & attractive figures developed due to iron solutions, the cut sandstone after polishing, looks very attractive. It has resulted in its use in place of granite/marble.

UMAID BHAWAN (CHITTAR PALACE) JODHPUR



GEOGRAPHICAL DISTRIBUTION

Rajasthan sandstone is mainly found in the main Vindhyan and Trans-Aravalli- Vidhyan sequence exposed in an area of about 34,000 sq. km. covering parts of Dholpur, Bharatpur, Karauli, Sawai Madhopur, Bundi, Jhalawar, Kota, Bhilwara, Chittaurgarh Jaisalmer and Baran districts in eastern Rajasthan and in scattered form in Jodhpur, Nagaur and Bikaner districts of western desert plain

Artifacts

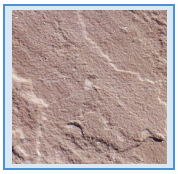
PROPERTIES

The Lower Bhander sandstone is usually medium to fine grained, purple, reddish-brown in colour with pale white bands and is compact, massive and having quadrangular joints. The Upper Bhander sandstone is reddish-brown in colour with cream spots. Jhalarapatan sandstone is fine-grained, hard, compact and of different colours such as white to buff-grey, red, cream and is acid proof. Jodhpur sandstone is coarse to medium grained, red and buff white in colour. Khatu sandstone is fine grained, creamish-white in colour and is specially famous for carving and used for making fine, perforated windows and jallies. The physical & chemical properties of Rajasthan sandstone are given in following table.

Jodhpur Pink	Jodhpur Red	Modak Ramganjmandi
		
Dholpur Beige Karoli	Rainbow Nagaur	Teak Wood Nagaur

TECHNICAL INFORMATION OF SANDSTONE

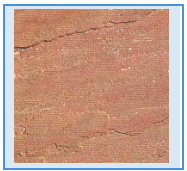
Properties	Jodhpur	Karauli	Dholpur	Bijoliyan
Density (Kg/m^3)	2.42	2.38	2.40	2.44
Water Absorption (%)	1.25	1.20	1.20	1.20
Modulus of Rupture (Kg/cm^3)	220	210	208	204
Compressive Strenght (Kg/cm^3)	390	358	460	750



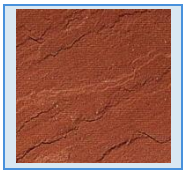
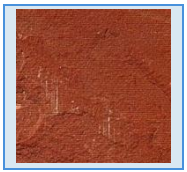
Color	Red, Pink, Buff, Brown

CHEMICAL PROPERTIES

Properties	Area			
Percentage	Jodhpur	Karauli	Dholpur	Bijoliyan
Sio_2	96.60	96.20	98.20	97.24
Fe_2o_3	1.20	0.80	0.84	0.96
Al_2o_3	1.00	1.20	0.32	0.84
CaO	0.28	0.40	0.28	0.28
MgO	0.20	0.20	Nil	Nil
L.O.I.	0.50	0.60	0.20	0.20

Bansi Pink Bharatpur	
Jodhpur Pink	Jodhpur Red
	
Dholpur Beige Karoli	Rainbow Nagaur
	

TECHNICAL INFORMATION OF SANDSTONE

Agra Red Karauli	
Jodhpur Pink	Jodhpur Red
	
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