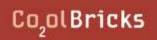


Damage patterns brick masonry

Damage pattern	Damage process	Photo of the damage pattern
Loss of material in parts, at the surface or of whole stones	Loss of adhesion: Loss of small, compact particles up to complete loss	
	Spalling: Scale off of compact particles	
	Layers peel off: Thin, flat particles peel off parallel to the ground surface	
	Layers peel off: Thin layers less than 1 mm parallel to the ground surface	





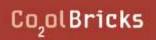
	Layers peel off: Thick layers of some millimeters up to centimeters parallel to the ground surface	
	Separation of major, compact pieces	
	Bonding failure between brick and mortar	
White coating at the surface	Material attachment: Blooming (crystal salts on or in the stone and/or mortar)	





Discoloured stones, sometimes with little cracks and deposits	Surface weathering with discolouration, fading, deposits, patina crustification	
Greening on stones and broken or porous mortar joints	Biological greening through moss, algae, lichenic, plants (grass, bushes, trees, one season plants, perennial herbs)	
Cracks in stones or in the joint net	Shrinking and expansion because of temperature changes	
Decomposition of materials (stone or joints)	Decomposition of materials (stone or joints)	



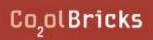


Capillary cracks in the stone	Single cracks in the stone, less than 0.15mm	
Net-like cracks with typical net pattern on the stone surface	Net-like cracks in the stone, less than 0.15mm	
Radial cracks on the stone surface	Radial cracks, more than 0.15mm	
Frame-like projecting joint mortar	Uneven weathering of stones and mortar	
Voids in the joint net	Decomposition of mortar chunks, destabilising of the brickwork bond	
Mortar cracks and disconnection of stones	Diverse cracks because of insufficient bond of mortar and stones	
Cracks in the brick facade of a cavity wall	Cracks mostly in the flank area	



Cracks in the facing masonry	Corrosion of the wire ties	
Chip off at stones (view also <i>Loss of</i> <i>material</i>)	Bursting effect because of frozen water in the stones	
Chip off at stones (view also <i>Loss of</i> <i>material</i>)	Bursting effect because of frozen water in the stones	
Pieces of joint mortar fall down	Bursting effect because of frozen water in the masonry mortar	





Moisture in brickwork (as first damage image)	Soaking of the brickwork	
Adhesion loss between stones and joints; joint image sustainably changed	Dust film on stone sides prevent further adhesion	
Porous stone surface	Sandblasting or other cleaning methods damage the stone skin	
Loss of material or salt deposit at the stone surface (see above)	Increased moisture and salt transport into the stone	