

Large Format Pavers

General Advice

Large format pavers are generally considered to be pavers with a surface area in excess of 0.16 m² (400x400) and pavers of 1 m² or more are not uncommon. Driven by design these large format pavers have become popular with architects designers and customers, unlike paving contractors who are left to deal with the practical dilemmas of handling and installing these monolithic elements. The following is general information, designed to assist customers and contractors in avoiding the more common problems associated with large format pavers.

Weight

Ranging from 30 – 125kg each, the large element paver requires more than one person to lift, and sometimes three or four depending on positioning. Forward planning is required for both site handling and laying.

Handling

Movement and handling of these pavers requires a higher degree of care, due to their large surface area to thickness relationship. They have a tendency to crack more readily if not handled with care and efforts should be made to reduce double handling of these units wherever possible.

Placement

Final placement of these pavers again must be done with care. As these pavers are large but relatively thin, repeated hammering with mallets will invariably lead to hairline cracks which may not be visible immediately but that will develop over time with expansion and contraction. Pavers should be gently positioned and pressed down with hands into a less firm mortar bed.

Curvature

Curvature of large format pavers is quite common particularly oblong shaped units. This occurs when pavers still curing are laid on a wet mortar bed on high temperature days. The result is that the back of the paver cures more slowly than the face which is exposed to high temperatures, causing the face to contract more quickly and therefore curve the paver. This manifests itself at the edges of the pavers with lipping of paver joints and breaking away of the grouting and can also be the cause of drumming or poor bonding.

Movement (Expansion and Contraction)

As concrete pavers are a cementitious product they are subject to constant expansion and contraction throughout their life. Large format pavers are even more so due to their large surface area as they draw in and expel heat during temperature and weather changes. Pavers will crack if stressed by being layed in large segments without due consideration to the use of expansion joints. These flexible joints allow movement pressure to be absorbed without cracking pavers.

Grouting.

As previously mentioned, early movement of large format pavers is common and this can sometimes lead to grout breaking its bond from the side of the pavers. Consideration should therefore be given to grouting the pavement at the last possible opportunity, and in cooler weather conditions that are suited to good curing and bonding.