

building the future 77

structures and roofs

TT Roof tile

TT is both a deck and roofing solution that is often used to cover considerable spans of manufacturing or commercial buildings as well as single- or multi-storey car parks.

As a scaffold, the TT is laid on L- or T-beams with an extrados-beam - extrados distance of the lower edge equal to the height of the roof tile. In this way, once assembled, the roof tiles generate with the extrados of the floor joists a continuous plane ready for the collaborating casting.

On the roof, it can be seamless to convey water away from the building or be supported on the channel beam system for water runoff.

In any case, the perfect waterproofing makes the roof perfectly weatherproof.









Hollow Core Slab

The vast use that contemporary construction makes of the prefabricated hollow core slab is easily explained considering its many advantages: high capacity to adapt to functional requirements, total self-support guaranteed at every stage of handling, transport and assembly with consequent elimination of any support work and excellent soundproofing properties. The hollow core slab is also an element that can be assembled very quickly.

Depending on the application situation, hollow core slabs are produced in a range of different thicknesses. The use of hollow core slabs makes it possible to create high fire resistance decks up to 180°. The flat intrados of the hollow core slab facilitates its use in civil construction.







Pillars and Beams

Clesi has a wide range of pillars and beams to meet all kinds of requirements, both in terms of height, load and aesthetics.

The pillars, manufactured according to strict control procedures that determine their high quality, can be equipped with internal drains for the disposal of roof water or other accessories along the shaft that can be agreed upon with the customer.

The head of the pillar, as well as its intermediate brackets, if any, are made by preparing the appropriate fixings for the beam that will be housed.

If the pillar is so high as to require exceptional transport or otherwise difficulties in terms of production, a mechanical coupling can be used to divide the prefabricated pillar into two or more parts in line with a deck so that the joint remains inserted within the beam-slab package. Beams can be of different types depending on the load requirement

and the deck system used. Prefabricated beams are produced in prestressing.







Double Slope

The DOUBLE SLOPE system takes its name from the beam that constitutes its main element, i.e. the prestressed reinforced concrete double-slope beam with a current 'I' section, connected to rectangular sections at the ends and an inclined slope extrados with a slope of 10% to 12%.

The beam is classified according to size and performance into two types: 'light series' and 'heavy series'.

In fact, the I-shaped cross-section changes depending on the lengths and relative capacities and varies from 40-10-28 cm for the light series to 50-12-50 cm for the heavy series. The standard characteristic fire resistance is R 90', which can reach R120' with appropriate additional reinforcement. Handling is by means of two

or four lifting hooks positioned according to the length of the beam.

Fastening to the supporting structures is carried out with metal profiles and galvanised bolts. Once the beam is fixed, the TT roof tiles, also made of pre-stressed reinforced concrete, are arranged.

The double-slope system, which results in a sloping roof extrados, is generally completed on site.

The insulation and waterproofing may therefore vary depending on the intended use of the building and the climatic characteristics of the site.









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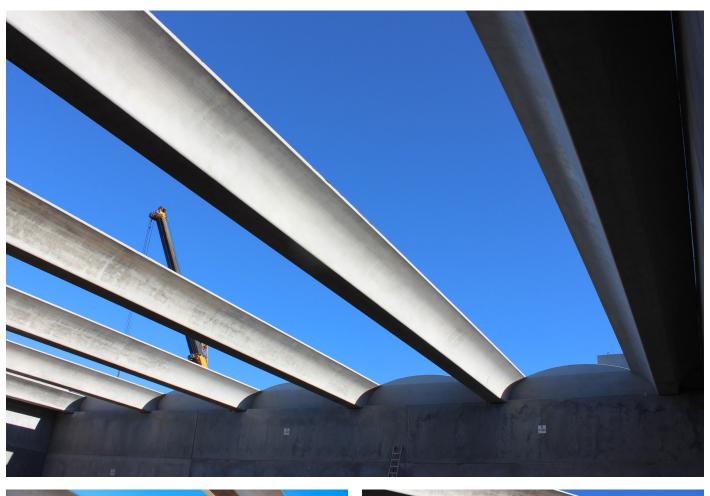


A system that identifies a decades-long tradition of prefabrication in northern Italy, the double-slope beam remains to this day the optimal solution for numerous building types.

The inclination of the pitches allows them to be used even in very snowy areas, as well as allowing proper penetration of zenithal light.

The beam is completed with inclined TI roof tiles. Waterproofing and insulation are generally carried out on site.













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Discover the features of Clesi **products**





















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