



Xpa Dowel Bars

DESCRIPTION

Reinforced concrete is an important construction material, offering strength, durability and the facility to be formed into a variety of shapes. Concrete structures are designed with expansion and contraction joints at appropriate places to allow movement due to shrinkage, creep and temperature differences. The design of the joint is important for the structure to function correctly and effectively. **Xpa Dowel Bars** play an important role in the proper functioning of the joints.

FEATURES & BENEFITS

- Transfers shear loads across the joint while allowing the structure to move.
- Reduces joint faults and corner cracking and breaking.
- Simple and easy to install.
- Supplied in a range of types and sizes to suit design requirements.
- Available in mild steel, galvanized steel and stainless steel

MAIN USES

Xpa Dowel Bars are mainly used in construction joints for shear load transfer across the joint. They can also be used for movement joints in slabs, suspended slabs and for replacing double columns and beams at structural movement joints. Applications in civil engineering include joints in bridge parapets, bridge abutments and diaphragm wall construction.

SPECIFICATION

Xpa Dowel Bars are made of grade 40 and 60 steel as per ASTM A 615, Specification for Carbon Steel Bars for Concrete Reinforcement.

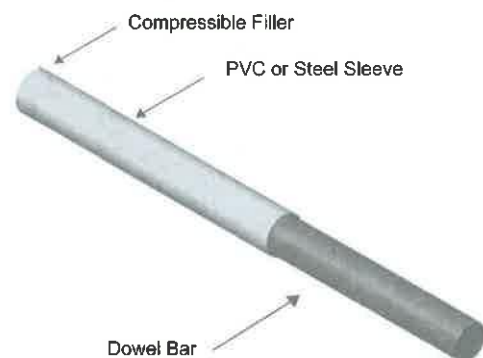
STORAGE, HEALTH & SAFETY

Xpa Dowel Bars are supplied loose and must be stored in protected areas above ground. There are no health and safety hazards associated with the material for normal usage.

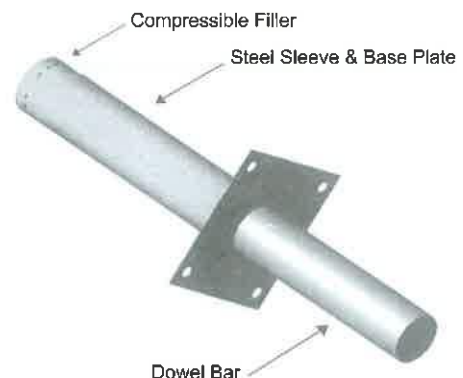
TYPES

Xpa Dowel Bars are supplied in the following types:

- Type A: Dowel Bar with PVC or steel Sleeve



- Type B: Dowel Bar with Steel Sleeve & Base Plate



STANDARD SIZES

- Bar diameter: 16mm, 20mm, 25mm & 32mm
- Length: 500mm and 600mm

When ordering specify type, bar diameter, length and material (mild steel, galvanized steel or stainless steel).

INSTALLATION

Type A:

Type A dowel bars are normally installed using readymade or site-fabricated dowel baskets, cradles or chairs. Ensure dowel bars are secured firmly on the supports and follow the spacing and edge distances given on the structural drawings.



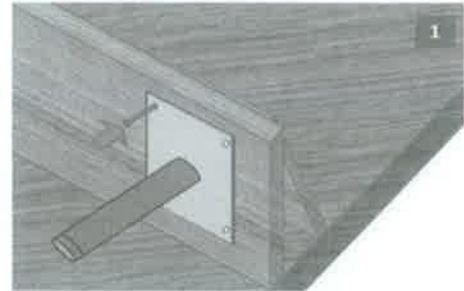
Typical Dowel Cradle

Type B:

The two part design of Type B dowel bars eliminates the need for drilling the formwork on site, supporting dowel bars on baskets or chairs and fitting debonding sleeves and end caps.

Nail the sleeve component of the dowel bar to the shuttering (see figure marked [1]), ensuring that the sleeve is correctly orientated for the direction of the load. Follow the spacing and edge distances given on the structural drawings. After the first pour and when the formwork is removed, push the dowel component into the sleeve until it is fully located inside. It may be necessary to tap the dowel

component to overcome the dimple in the sleeve that pinches the dowel in the sleeve and prevents dislocation when the concrete is vibrated.



Fixing the Sleeve components to the formwork

SUPPLY FORM

Xpa Dowel Bars are supplied loose to the quantities ordered. See **Standard Sizes** above for ordering details.

STORAGE

Xpa Dowel Bars should be stored above ground on shelves or palettes and protected from the elements with tarpaulin, polyethylene sheeting or the like.

HEALTH & SAFETY

There are no direct health and safety hazards associated with **Xpa Dowel Bars** under normal conditions. Use of protective gloves is recommended to avoid injury during handling and installation.



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