



# Jowat-Toptherm® 233.10



- Assembly adhesives for manufacture of precast concrete parts**
- Effective on rough as well as smooth, warm or cold surfaces**
- Very good adhesion to many plastics and sheet metal**
- Vibration-resistant bonding**
- Very fast build-up of strength**
- Easy removal of adhesive residues**
- All-purpose for all seasons**

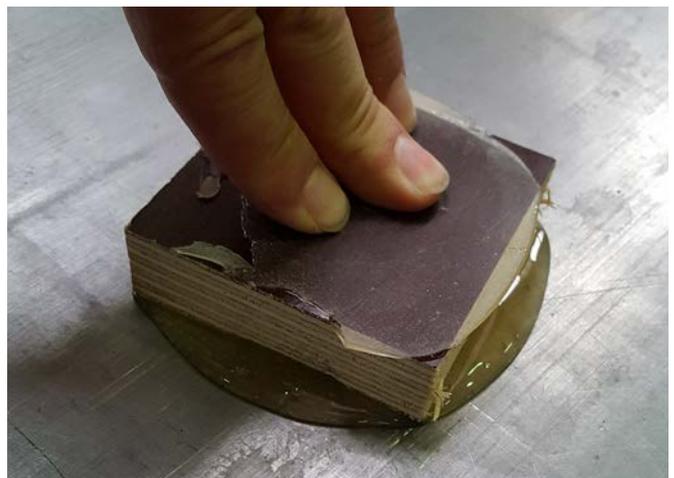


# Ideal for the manufacture of precast concrete parts

Modern thermoplastic hot melt adhesives based on polyolefin from Jowat bond wood-based materials as well as a wide variety of different plastics with relatively low surface tension, such as PE and PP, and also metallic surfaces. Special formulations and the purely physical adhesion mechanism of the adhesives facilitate a mechanical removal of the cold adhesive from the bonding surface with virtually no residues. Therefore, the formwork elements can be reused several times for casting concrete parts.

**Jowat-Toptherm® 233.10** is applied using hot melt guns which are either filled with a cartridge or supplied with adhesive from a melting tank – filled with granulate or adhesives in pillows – through a heatable hose. This adhesive is characterised by a very fast build-up of strength during cooling, and the formwork can already be filled with adhesive a few minutes after bonding. Controlled ambient conditions are not necessary for bonding.

The adhesive **Jowat-Toptherm® 233.10** is optimised for this particular application. It is flexible enough to absorb vibrations and hard enough for a relatively easy removal. The tried and proven PO-based hot melt adhesives from Jowat have been used for many years and are available – adapted to the established applicator systems – in granulate form, pillow form as well as in cartridges.



### INFO: PO hot melt adhesives

Thermoplastic polyolefin (PO) hot melts can be manufactured from a number of different polyolefin polymers. This facilitates the development of tailor-made adhesives with the optimum product characteristics for a specific applications. The formulation of these assembly hot melts is based on amorphous polyolefins and resins which make the adhesive relatively soft, tacky and flexible. Due to their low own polarity, they are ideal for bonding nonpolar plastics such as PE and PP. The adhesives are hardening physically on cooling and therefore build up their internal strength very rapidly. They have only a limited resistance against oil, and good resistance to acids. The adhesives are free from plasticisers, silicones and isocyanates.

# Information

## Application

For flexible bonding of temperature insensitive materials. Good adhesion to plastics, such as PE, PP, PS and PC, as well as to wood, and steel. Ideal assembly hot melt adhesive with a wide range of applications, also on non-absorbent surfaces. Flexible bondline which can absorb vibrations.

The hot melt is adapted for use in the production of precast concrete parts due to its special characteristics, e.g. for positioning polystyrene or wood mouldings, electrical components, or spacers. This application not only requires a good adhesion of the adhesive to the substrates. A reliable bond also has to ensure resistance against the vibrations occurring when the concrete in the formwork is compacted with plate compactors. In addition, these thermoplastic adhesives leave no residues when removed after cooling from the formwork panels. This is especially important for a superior appearance of precast béton brut parts, and also allows to reuse the formwork panels as well as other relevant parts used in the manufacture of precast concrete.

## Directions for use

The PO adhesives are usually supplied in block, granulate or pillow form and are heated in standard melting units to a temperature of approx. 180 – 200 °C and applied onto one substrate as beads using a hot melt gun or sprayed onto the full surface. The cartridges are usually used in hand hot melt guns. To ensure an optimum adhesion, the surface to be bonded has to be clean, dry and free of oil.

To achieve a sufficient bond strength, the part with the adhesive only has to be pressed firmly onto the formwork panel for a few seconds. On cooling, the adhesive will build up its cohesive strength as well as the adhesion between the bonded parts. The wide range of adhesion of the adhesives facilitates a reliable bonding of many, different materials. The specified open time indicates the maximum processing time of the hot adhesive, directly after application onto the substrate until fastening, e.g. on a formwork panel.

When the adhesives are heated again, they become soft and liquid and facilitate a repositioning of the bonded parts without any significant loss of adhesion.

The adhesive application amount should always be high enough to ensure a sufficient adhesive coating, i.e. the surface to be bonded should be fully wetted.

## Jowat-Toptherm® 233.10

Polymer basis		PO
Appearance		gellowish opaque
Viscosity at 200 °C	[mPas]	1,500 ± 500
Processing temperature	[°C]	180 - 200
Open time at 190 °C	[min]	approx. 1,5 ± 0,5
Setting time at 190 °C	[min]	approx. 1,5 ± 0,5
Softening range	[°C]	approx. 80 ± 5
Recommended application		all-purpose
Supply form		Pillows, granulate, cartridges (Ø approx. 43 mm, L 5 cm)

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## Jowat – Kleben erster Klasse

## Jowat – first class bonding

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