



# Difference between Barrier and Release Agent – *Precast Concrete*

**ARMCON**  
CERTAINTY: IN CONCRETE

## Release Agent Differences.

A release agent is the material that ensures your concrete demoulds with ease out of your mould.

Simply put Barrier release agent like baking a cake is like the butter on your tin. It ensures that there is a layer between your tin and your cake that ensures you can slip it out easily. Usually you need to put a large amount of barrier release agent to ensure the concrete comes out.

Chemical Release agent is a bit more complicated. It produces a chemical barrier between the mould (or whatever you are protecting) and the concrete – to be precise the fat of the concrete. It ensures that the cement cannot set on the mould. When you demould using the chemical release agent look at what is left when you demould – a light powder should be visible. This is where the release agent has effectively stopped the concrete from setting at the sides of the mould.

So let's get into the advantages and disadvantages of each one:

Advantages of Barrier Release Agent:

- Demoulds Easily – Due to the fact that you put a lot on it ensures an easy demould, which if you are producing concrete products out of say concrete moulds, its essential that the concrete can demould.

Disadvantages of Barrier Release Agent:

- High Usage – You need a lot of material to demould the mould properly. So high wastage.
- Stained Finish – If you are looking for a perfect finish then a barrier release agent can cause the concrete to stain and look poor.
- Damaged moulds over time – this depends on the moulds – plastic moulds will suffer over time especially if your oil contains solvents.
- Costly – They may seem cheap over all but the high usage means in the end they can be expensive.
- Can be hazardous – such as waste oil

Bear in mind that although it seems the disadvantages far outweigh the advantages, in some occasions a barrier release agent is the right choice.

Advantages of a Chemical Release Agent (Based on CRA3):

- Demoulds easily.
- Very small amount needed – you need as much as breathing on a mirror to coat the mould. 60M sq per ltr coverage rate.

- Increased mould life – when talking about plastic moulds.
- Easier Mould Cleaning – Simply brush the dust that remains after the demoulding.
- Will not damage your moulds – Apart from very few grades of latex.
- Can be used as a barrier agent on your machinery.
- Non Hazardous.

Disadvantages of Chemical Release Agent:

- Must use a small amount – too much can cause staining If it drips when you spray it on then you have put too much.

CRA3 has been designed specifically with plastic moulds in mind meaning it will continue the life of your mould for many years to come.

So next time you buy release agent buy the one that suits you.