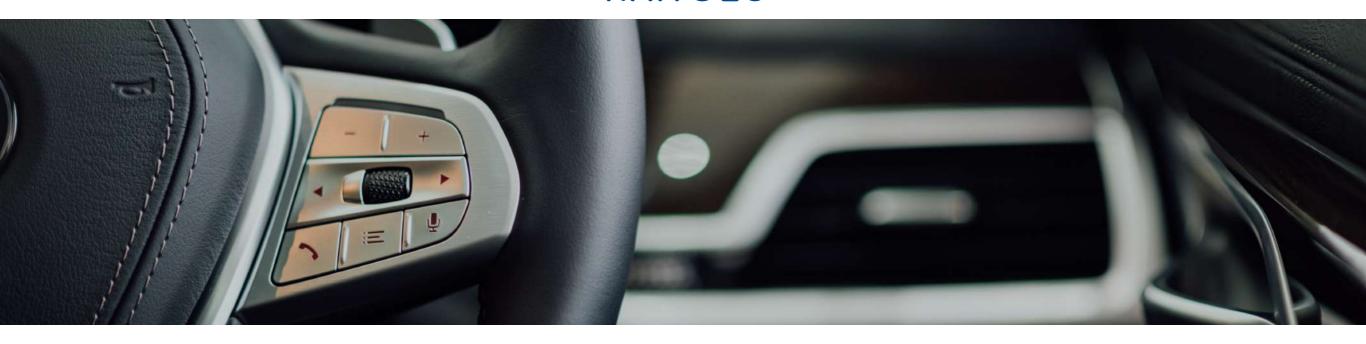
# STEERING WHEELS: MANUFACTURING AND CONCENTROL RANGES



### 1. Manufacturing process

- The **metal base** is a skeleton made of one of these metals: magnesium, aluminium or steel.
- A robot first installs the horn system. Right after, it is covered with a soft and very durable foam material, usually polyurethane (PU).
- To form the polyurethane foam, a process called injection moulding is performed. A release agent is used so that the foam does not get stuck in the mould.
- Once the excess PU has been trimmed off, it is time to install the internal components. High-end steering wheels can be leather-wrapped or have additional functionality.

## 2. The release agent

Depending on the process, the release agent to be used will be different:

As we saw previously, the manufacture of the foam body can be done in three ways:

- PU foam steering wheel without painting.
- PU foam steering wheel with 'in-mould coating' painting inside the mould.
- Painted PU foam steering wheel with leather or textile covering.

Release agents for Integral Skin Polyurethane Foam or PU ISF (Integral Skin Foam) are specially formulated to produce a mat, uniform surface finish that can then be easily painted.



### 3. Benefits of the Concentrol range

- Good mould release that offers superior performance in the manufacturing process.
- Provide appropriate gloss / matte and appearance.
- Free of superficial defects like 'pin holes' and white spots, among others.
- Good compatibility for subsequent painting.
- Compatible with touch technologies on the steering wheel.

Our **release agents** are capable of solving different possible problems: the formation of too much 'build up', white spots or 'white blooming', small holes or 'pin holes' or difficult adherence of leather to the steering wheel.

## Other products

We have other products such as **stabilizers**: the **CONCENTROL STB PU**® range improves the emulsification of the system components, offering sufficient stabilization in the foam expansion process, in addition to controlling the size and distribution of cells.

And the range of **mould cleaners** allows easy cleaning of the moulds after long work cycles.



