

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.

