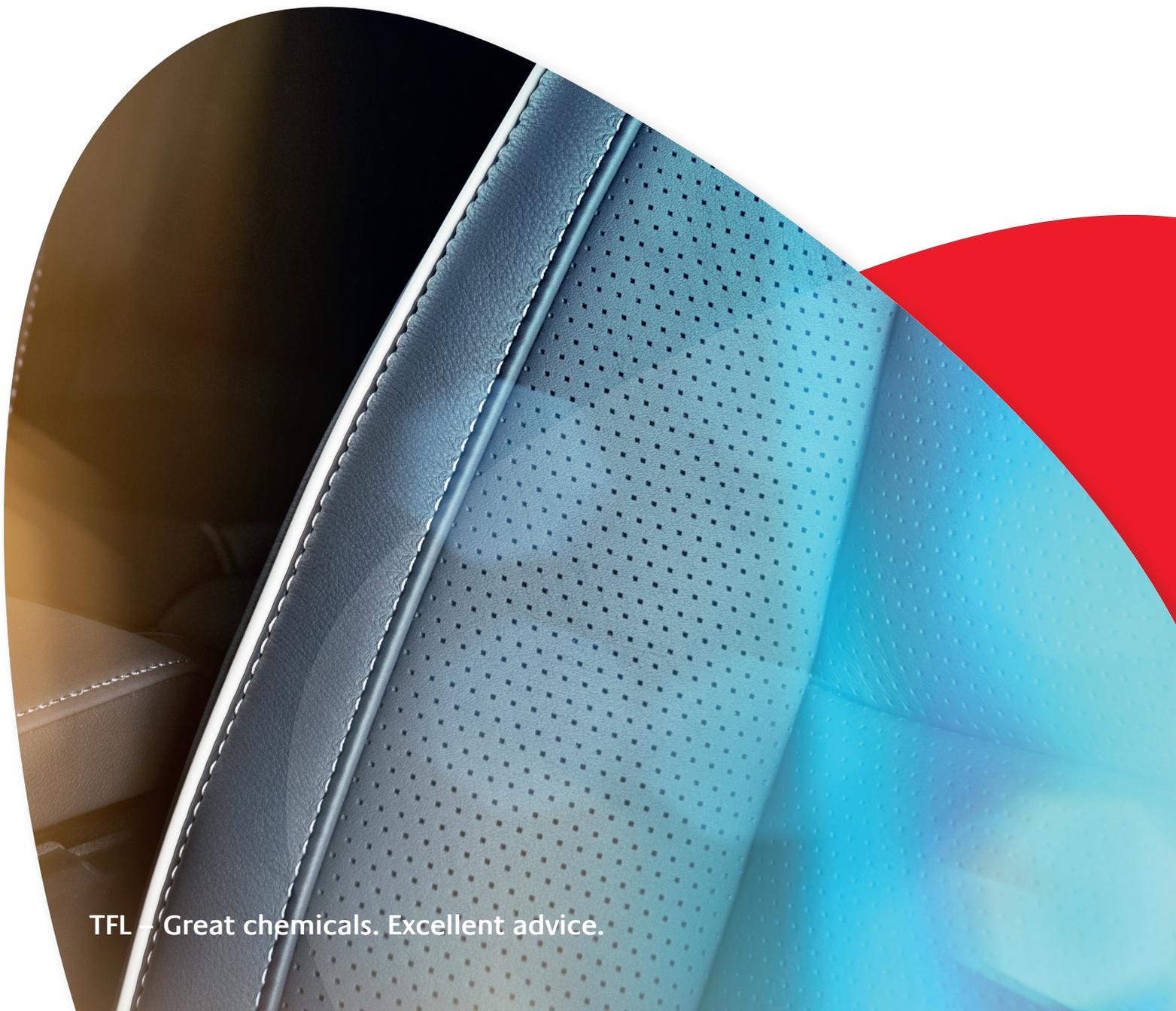




TFL LOW EMISSION

Prevention of odour in car interior

» Selected processes and chemicals improving air quality



TFL - Great chemicals. Excellent advice.



Car leather – significant potential for emissions

Your TFL solution for better air quality in car interiors

Smell is our most intimate, individualistic sense and we are able to distinguish between > 10'000 different molecules. Until now, smell was probably the most ignored sense; now however, in the changing field of automotive interiors, the odour of leather may be the key to achieving a competitive advantage.

“Consumers care as much about their new car’s smell as its horsepower”

Leather may contain some degraded residues from proteins, natural grease and impurities from chemicals used during the leather making process. These substances can be released into the car interior and detected as unpleasant odours.

The following substances in leather are recognised as “problematic” and cause unpleasant odours in car interiors:

- Amines: from protein degradation during beamhousing and waste-water recycling.
- Aldehydes: from the oxidative decomposition of natural fats and low quality fatliquors.
- Thio-compounds: trace levels originating from beamhousing, protein degradation and certain biocides.

How to prevent the oxidation of natural fat and grease:

- Metal ions contained in water and dyes may catalyse the oxidation of fats.
 - ❖ Use BORRON® ST to minimize this risk.
- Thoroughly degrease your raw material.
 - ❖ Using BORRON® DL - technology combined with classic surfactants, such as BORRON® SE.
- Introduce fatliquoring agents to your wet-end process which contain radical inhibitors,
 - ❖ Use CORIPOL® LEO.



CORIPOL® LEO - Low emission fatliquoring agent with good heat yellowing which avoids unpleasant odours.

How to prevent trace levels of amines and thiols:

- Amines, mainly present in wet blue material can be de-activated.
 - ❖ Use SELLATAN® WL-G.
- Thiols can be substantially reduced in leather.
 - ❖ Utilizing the TFL LS low sulfide technology, featuring products such as PELLVIT® LSG and ERHAVIT® LSU.
- Degradation of proteins can cause the formation of Amines and Thiols.
 - ❖ Use SELLA® Tec DEO to minimize this risk.



SELLA® Tec DEO - Is a washing and fixing aid to eliminate unwanted VOC's and reduces unpleasant odours.

Successful prevention of odour

❖ CORIPOL® LEO

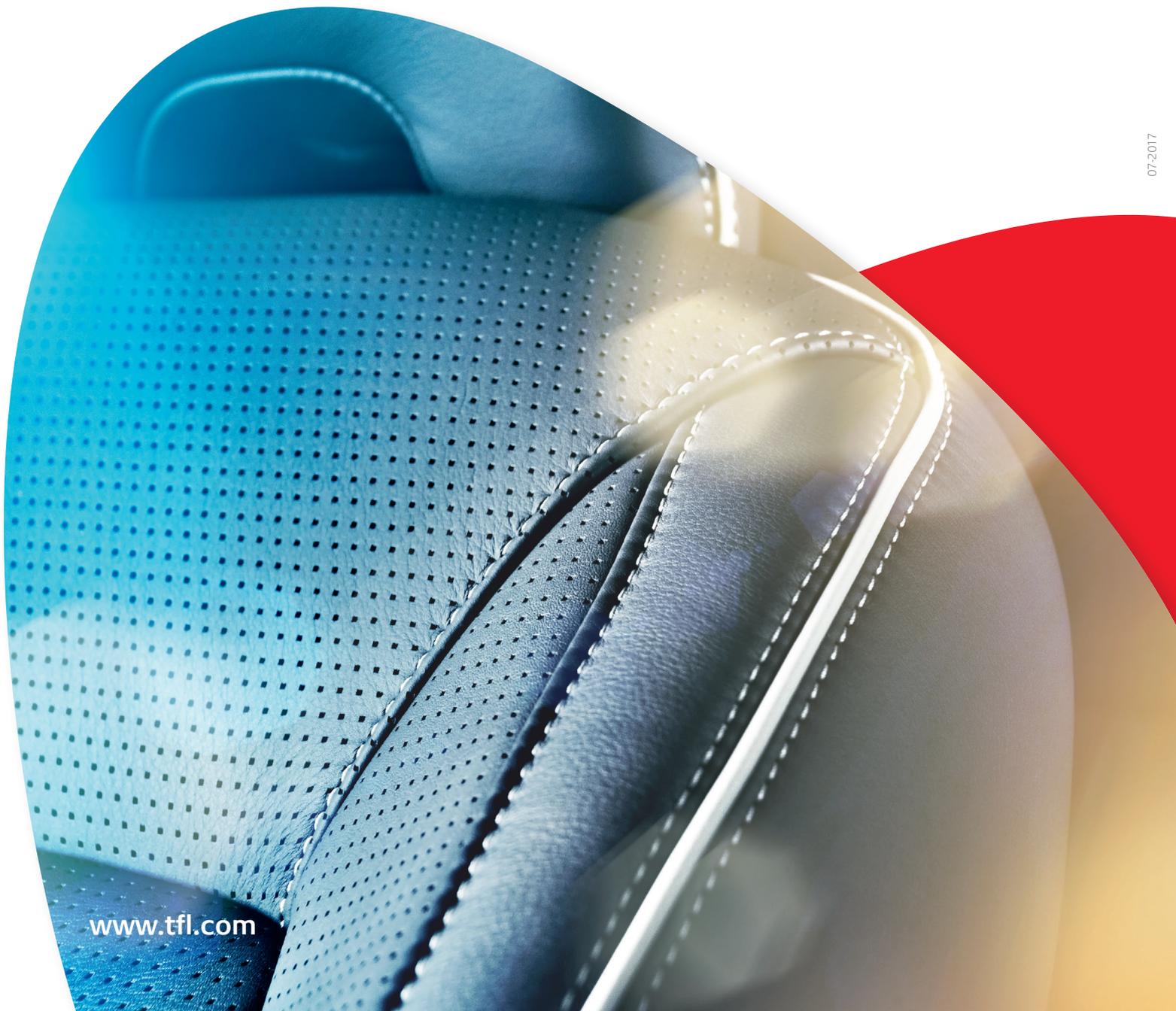
- Odour optimized fatliquor
- Low VOC & Fog levels
- Excellent fogging values
- Good heat yellowing
- High inner softness
- Avoids formation of chromium VI

❖ SELLA® Tec DEO

- Washing and fixing aid
- Eliminates unwanted odours
- Excellent fogging values
- Improves fixation of dyes



TFL PRODUCT SELECTION –
to fulfill low emission specifications



www.tfl.com