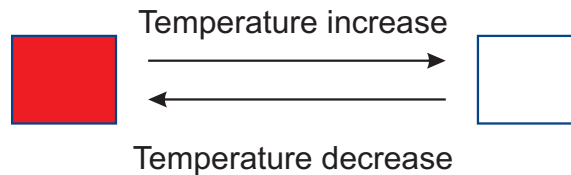


1. What is it?

Thermochromic decal – this is thermohardening decal that utilize thermochromism effect, that is some substances ability to reversible colour changes, under temperature influence. When temperature achieve specified level the colour starts to fade, and return to primary shade after cooling.



Colour starts to fade till colourless, when temperature achieve developed level. Range of changes could be from -15°C to 65°C . Sensitivity is usually within the limits of $\pm 5^{\circ}\text{C}$ and do not exceed 20°C . Pigments that change colour in temperature below 33°C have excellent sensitivity.

In our standard offer available will be decals with transformation temperature 15, 22, 43°C (upper temperature limit).

Thermochromic decals could be applied on: wood, plastics, porcelain, glass, ceramic, stainless steel, anodized aluminium, and lacquered surfaces.

2. How to apply thermochromic decal

- Water for decal soaking should have low content of mineral components (distilled water recommended) and temperature $18 - 25^{\circ}\text{C}$.
- Time of decal soaking should be about 1 - 3 min.
- Decal should be applied on clean surface: without dust, organic pollutions (for example lubricants), enriching coatings or deposits. At extreme cases recommended is: the surface cleaning with water with detergent addition, cleaning with 5% acetic

acid or pre-burning before decal applying.

- After decal deposition on decorated article - through sliding from wet paper - remains of water and air should be thoroughly removed using soft rubber or cloth.
- Decorated articles should dry 30 - 60 min. at temperature 50°C , or 24 hours at room temperature.
- After drying process the strippable coating on top of the decal should be removed.
- The dishwasher resistance of low-temperature decals could be increased:
- Before decal deposition, surface of decorated article should be brushed with primer 804516 or 2% solution of primer 804515.
 - Decal should be applied on prepared surface and pressed.
 - When using primers, surface of the pattern should be cleaned with a wet sponge or cloth before drying, otherwise a white film may be visible that is difficult to remove.
 - Decal should be dried and strippable coating removed.

3. Thermal curing

The decorated articles require thermal curing in a hot-air or other ventilated oven. Below table shows the recommended curing conditions.

Curing temperature	Curing time
160°C	30 min
180°C	20 min

In case of higher temperatures or longer curing times, a yellowing or fading of the decoration is possible.

4. Properties of thermochromic decals

- lack of heavy metals
- large variety of colours
- lack of sunlight resistance
- solvent resistance
- alkali and acid resistance

5. Storage of thermochromic decals

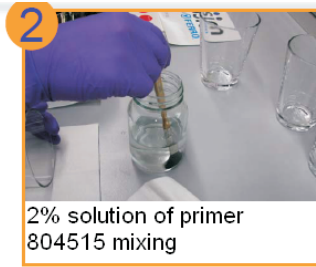
Storage in dry place, at room temperature, far from sunlight is recommended.

Permissible time of storage - below 1 month.

Gwarantujemy jakość.etc



1
Decal soaking in water
1 - 3 min.



2
2% solution of primer
804515 mixing



3
Glass brushing with 804515
solution



4
Decal applying



5
Decal pressing with soft
rubber



6
Cloth wetting



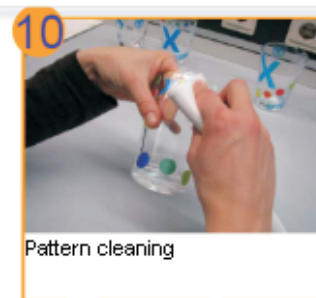
7
Surface of the pattern
cleaning



8
Drying process depending on
conditions



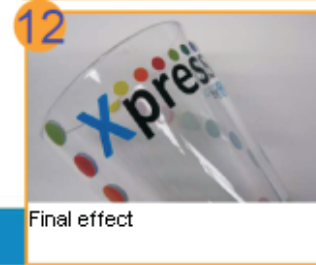
9
Strippable coating removing



10
Pattern cleaning



11
Curing process



12
Final effect