

E-COAT Solutions

EDCORE®  
EDCORE®-max

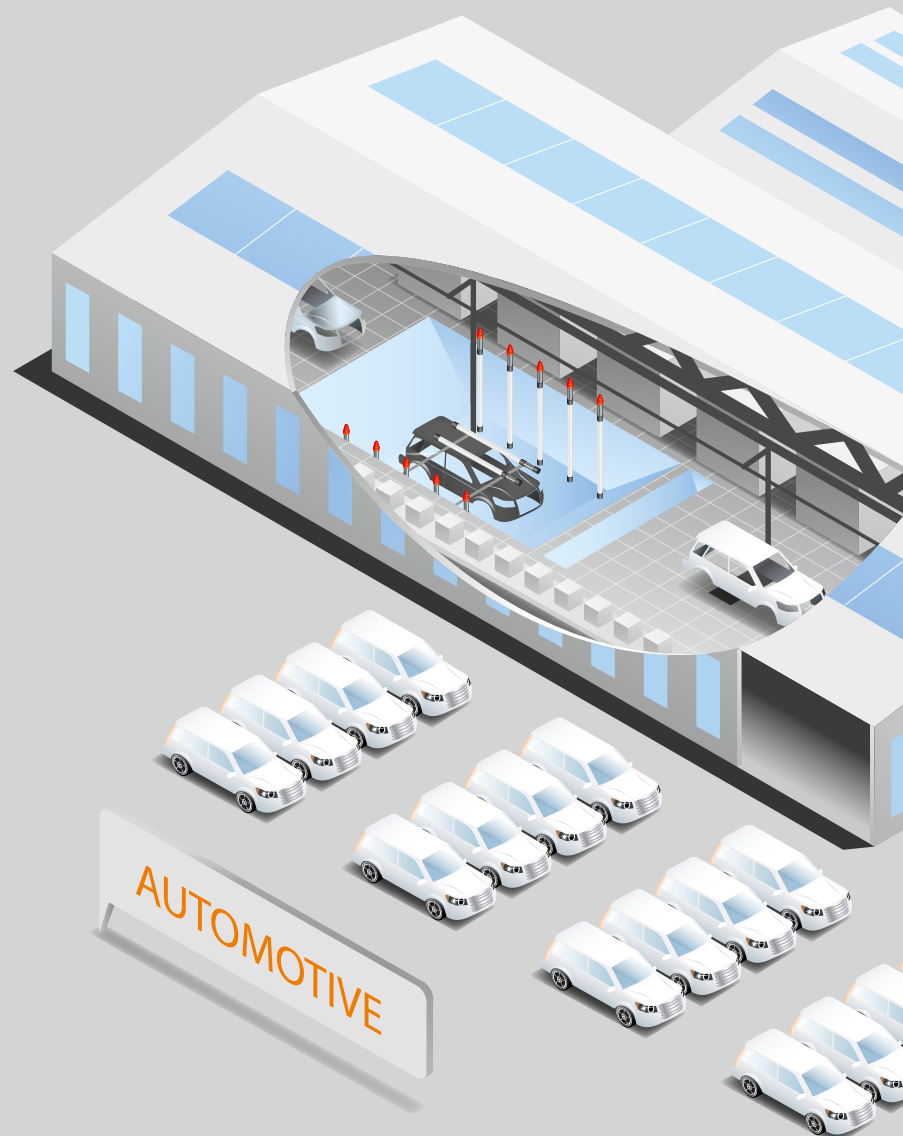
Electrodialysis Cells,  
**made by ALTING**



alting

## Electrodialysis Membrane, the Solution for your Ecoat tank

We support most major automotive manufacturers since 1998.  
Our solutions are custom tailored to each cataphoresis tank,  
warrantied and co-developed for the End User.



## Membranes

- 1** ALLOW HIGH IONIC TRANSFER :  
15% to 20% greater than flat ED-membranes
- 2** ARE EXTRUDED AND SELF SUPPORTED :  
no grid, no glue to build a cylinder, no leakage
- 3** CAN BE DRIED, RE-WETTED AND USED AGAIN
- 4** HAVE A SMOOTH SURFACE :  
easy to clean and brush – no grid inside or outside
- 5** ARE NOT WATER PERMEABLE :  
no anolyte permeation during maintenance operations



## EDCORE® Cells

- 1** ARE ENERGY FRIENDLY :  
saving 15 to 20% energy in the process
- 2** EXPAND FREELY FROM DRY TO WET :  
NO WRINKLES, no paint sedimentation
- 3** HAVE A LONG LIFE TIME :  
many installations over 10 years old
- 4** ALTING PROVIDES 3 YEARS WARRANTY  
IN AUTOMOTIVE INDUSTRIES  
QC : all EDCORE Cells are tested under water pressure
- 5** ARE ALL BUILT WITH DESIGNS UNDER PRESSURE :  
- allowing sized flow rates for each cell  
- optimizing energy costs for the pumps
- 6** ALLOW FRIENDLY MAINTENANCE-MONITORING  
AND CAN BE REPAIRED (SMALL CUTS :  
WITH EDCORE MEMBRANE PATCHES)
- 7** ALTING OFFERS ASSISTANCE IN SIZING,  
and proposes contracts for Mounting and Maintenance



# Electrodialysis Cells, made by ALTING

## Membrane Description

|                              |                                                                                 |
|------------------------------|---------------------------------------------------------------------------------|
| Membrane material :          | Polyolefin + Polystyrol + Ionic Resins + Divinyl Benzene                        |
| Membrane type :              | seamless extruded Membrane                                                      |
| Surface membranaire EDCORE : | ø 63 mm -> 0.193 m <sup>2</sup> activ per/ Meter                                |
| EDCORE® Max :                | ø 81 mm -> 0.254 m <sup>2</sup> activ per/ Meter                                |
| Membrane thickness :         | 2,8 mm                                                                          |
| Burst resistance :           | > 2 kg/ cm <sup>2</sup>                                                         |
| Tensile strength :           | > 250 kg                                                                        |
| Electrical resistance :      | 100-150 Ohm/cm <sup>2</sup> (mesured by a concentration of 1 ,5 %, CH3 COOH 99% |
| Dynamic Transport :          | 91 % (Acetic Acid at 3 %)<br>80 % (with an over flow of acetic acid)            |
| Ionic Echange :              | 1,4 – 1,6 meg / g dry                                                           |
| Water permeabilty :          | no water permeation                                                             |
| authorized pH range :        | 1 - 12                                                                          |

## Electrode Description

|                             |                                                                                  |
|-----------------------------|----------------------------------------------------------------------------------|
| Material :                  | 316 L / 3R65 seamless extruded, degreased and passivated                         |
| Diameter :                  | for EDCORE 48,3 mm x 2,77 mm<br>for EDCORE Max 60,3 mm x 2,77 mm                 |
| Surface :                   | 0,153m <sup>2</sup> per Meter (EDCORE®)<br>0,190m <sup>2</sup> per Meter (EDMAX) |
| Authorized Intensity max. : | 50 A/m <sup>2</sup>                                                              |

## Process parameters (Anolyte)

|                           |                                                |
|---------------------------|------------------------------------------------|
| Inlet pressure Maximal :  | for EDCORE® 0,8 bar<br>for EDCORE® Max 0,5 bar |
| Temperature max :         | 45°C                                           |
| Δ Temp Inlet / Out let :  | 2°C                                            |
| Anolyte-Flow rate :       | 3 to 5 L/h/Amp/m <sup>2</sup>                  |
| Authorized Tension max. : | 75 A/m <sup>2</sup> active anodic surface      |

## ED-Cell customer driven solutions

|                       |                                                                                     |
|-----------------------|-------------------------------------------------------------------------------------|
| length :              | adapted to the customer requests                                                    |
| Anolyte connections : | Inlet : Ø9 / 15 mm<br>Outlet : Ø12 / 19 mm                                          |
| Electr. connections : | 16 mm <sup>2</sup> – for VC (vertic. Closed) 25 mm <sup>2</sup> for HB(Hor. Bottom) |

## Advices

Temperature range : given by the paint producer for the process. Maxi 45°C  
The EDCORE® cell can dry and be reused (Membrane cleaning with EDI Water)  
The EDCORE® cell expand from DRY to WET : +5% for EDCORE® +7% for EDMAX