A proper cooling of the traction battery will ensure an optimal functioning and a longer working life.

The Phase Change Slurry CryoSol®plus offers the possibility to save valuable electric energy for driving instead of cooling. With its high energy density, which exceeds that of water by 200-300 %, battery cooling can be realised in the majority of cases only with passive cooling.

For thermomangement the cold storage is cooled using a chiller, during loading the battery. When driving, the battery is cooled by the cold storage and a passive cooler. Active cooling by a chiller, which consumes electricity, is only needed for temperature peaks and extreme conditions.

CryoSol®plus is a hybrid heat storage medium based on dispersed phase change materials (PCM), which has a high latent heat capacity combined with good flowing properties and a high heat transfer rate. Therefore a cooling system based on CryoSol®plus will need a smaller storage tank compared to water. Additionally, the required volume flows and the related energy consumption are reduced. Another advantage is that CryoSol®plus can be used both as heat storage and heat transfer fluid.

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