

[ATL TECHNICAL BULLETIN – E-Fuels](#)

TO: LMP / GT Teams

Date: 18th February 2008

Dear Team,

ATL would like to bring your attention our recommendations and position on the use of E-Fuels with fuel systems.

Fuel Cell Skin

Where fuels with a greater Ethanol content than 15% are to be used, the fuel cell should have ATL's Barrier Coating applied to **all** internal surfaces. This can only be applied to **new** fuel cells.

If in doubt as to whether or not your fuel cell is Barrier Coated please contact ATL with the serial number from the cell.

Fuel cell skin can be affected whether coated or not if phase separation occurs in the fuel. While these fuels are a homogenous solution they are not nearly as aggressive as when the Alcohol settles to the bottom of the fuel cell. Phase separation is accelerated by moisture in the atmosphere. ATL have developed a 'drier' for the fuel cell vent line to help reduce the risk of phase separation causing damage to the fuel cell.

To prevent any issues regarding phase separation, ATL recommend that ALL cells used with E-fuels should be flushed through thoroughly with "standard unleaded".

Nut rings

All Aluminium nut rings should be anodised. Where ATL standard inserted nut rings are used they should have Stainless Steel inserts.

Pumps & Filters

Bosch are currently recommending that the life of fuel pumps is halved where used with E-fuels as there may be issues with the Aluminium pump body and some internal components. We recommend the same for lift pumps.

All filters should be inspected or replaced regularly.

Foam

ATL have seen some issues with our Anti-Static foam in the VP E10 fuel to be used in the LMES & ALMS in 2008. Having switched many cells over to our standard yellow foam we have not seen any issues.

Gaskets

All 'static' seals should be Viton.

Fillers

The seal in the ATL female valve can be treated as a 'static' seal and therefore it can remain Viton. Where E-fuels are used, male probes should be fitted with our KS119E replacement seal kit. This replaces all 'dynamic' seals with seals made from a specially developed compound.

If you are using Staubli refuelling equipment the rig-side Socket should be upgraded to the latest seal kit by Staubli. Any car sockets bought in 2008 will be to this latest specification.

Please do not hesitate to contact either myself or Kevin Molloy to discuss any matters or areas you wish to have further clarification on.

Kind Regards,

Giles Dawson

Technical Sales & Trackside Support Engineer
ATL Racing Fuel Cells