



Change to foam flesh used by EEVC lower & upper legforms

Brian Hardy
GTR9-PH2 8th mtg 9-10 Sept 2013

Advice received from manufacturers of Confor foam

- The flesh material specified in GTR 9 for the 'flesh' of both the EEVC lower legform and the EEVC upper legform is effectively Confor foam, made by Aero Technologies LLC – a 3M company:
 - “The foam flesh shall be 25 mm thick foam type CF-45 or equivalent”
- The foam being used is Confor foam type CF-45
- TRL has recently been informed by the manufacturers:
 - “The standard CONFOR product line is being replaced with two updated versions. Both the new CONFOR M foam and the CONFOR AC foam have the same slow recovery attributes as our current standard foams. The CONFOR M and CONFOR AC foams are both RoHS Compliant. Additionally, the CONFOR AC foam meets CAL 117 and FAR 25.253 (a) requirements.”

TRL action

- The properties of the foam are critical to the performance of both impactors in the dynamic certification tests
 - The foam is less important in vehicle tests, where the vehicle is the primary energy absorber
- TRL has therefore requested a sample sheet of both new types (CF-45M and CF-45AC)
- TRL will evaluate their performance in dynamic certification tests

Request

- TRL will only be able to carry out a few tests with the sample sheets
- These will not be enough to cover fully repeatability issues, especially batch-to-batch repeatability, nor reproducibility
- Therefore, TRL would welcome test data from anyone else testing the new foam types

Consequences

- If the new foam performs well – none
 - Should be no need to change the GTR, as covered by “or equivalent”
- If, in the worst case, using the new foam leads to frequent failures in the dynamic certification tests, then it may be necessary to request an adjustment of the performance limits specified in the GTR
- Those responsible for computer models of the Confor foam may need to revise their models