Arnitel®

Arnitel HT: The new standard in high temperature flexible air ducts

The one part solution

Arnitel® HT (TPC) will allow system suppliers to produce the hot charge air ducts in a single material and using a single process step. “We can now make ducts that were not possible by the blow molding process in the past. For our customers Arnitel HT offers weight reduction, reduced risk of leakage and cost effectiveness” Urko Gurmendi of Cikautxo.

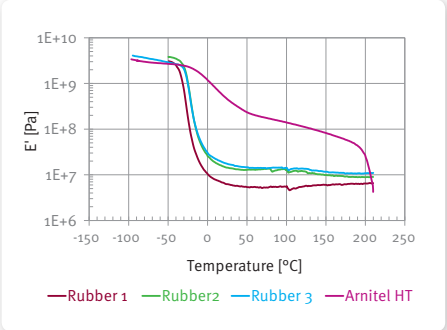
HEALTH · NUTRITION · MATERIALS

DSM
BRIGHT SCIENCE. BRIGHTER LIVING.

The new heat standard

In the quest for maximum efficiency, engines are getting hotter. DSM, inventor of the Diablo technology, now invented Arnitel HT. This material raises the performance benchmark for temperature resistant TPCs. You can start designing your one part solution for your next generation engine today.

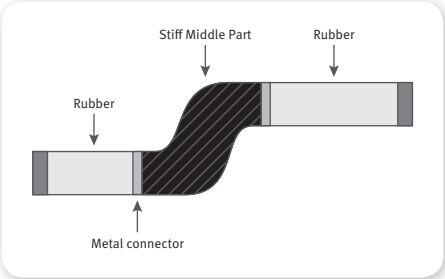
- Improved heat ageing
- Different Shore-D hardness
- Improved chemical resistance
- Flexibility to cover engine movements in a single part solution

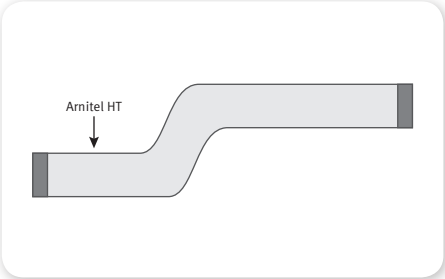


DMTA

Arnitel HT outperforms rubber in many aspects

- Weight saving up to 40%
- Cost saving up to 50%
- Reduced risk of leakage
- One part solution
- Single step production and assembly
- Improved environmental impact





Proven performance in ducts

Arnitel is a proven solution for ducts.

- Hot charge air ducts:
  Arnitel HT allows system suppliers to produce the ducts in a single material and using a single process step. Switching to Arnitel HT provides producers with a significant improvement in process efficiency and cost reductions of up to 50%.

- Clean air ducts:
  Arnitel in clean air ducts offers up to 50% reduction in weight and wall thickness as compared to rubber, resulting in a significant cost advantage and an improved environmental profile. Its elongation after heat aging is four times better than other TPCs. This material retains the same stable stiffness at 175°C. Arnitel's higher stiffness can be used to reduce wall thickness, and therefore save weight, in some applications.

- Cold charge air ducts:
  DSM offers Arnitel for cold charge air ducts with operating temperatures up to 150°C and high pressure loads. Traditionally designed in rigid plastic, stainless steel or aluminum combined with rubber end parts, cold charge air ducts made from these materials enable metal to plastic conversion using both blow molding and injection molding techniques. Using Arnitel is the one part solution, reducing weight and enable system suppliers to produce parts in a simplified way.

Meet the extreme

Want to learn other extreme solutions DSM offers in air management? Or want to share your extreme challenge with us? Contact your local DSM office.

Contacts:

Japan: Yosuke.Umeda@dsm.com
South Korea: Eli.jang@dsm.com
India: Prasanna.Godbole@dsm.com
Europe: Christian.Kilgus@dsm.com
US: Russell.Bloomfield@dsm.com
China: Cheng.Bian@dsm.com