

About AWES

The AWES Joint Industry Project brings together oil companies, completion suppliers and equipment suppliers with the aim of improving the reliability of advanced well equipment through the development of published industry standards and recommended practices for the qualification of the relevant completions equipment.

Testing Standards for Dissolving Materials (DM)

There is an increase in the use of dissolvable materials (DM) across a range of applications in the O&G industry. In order to accelerate adaptation of DM in O&G a supplier needs to be able to demonstrate expected performance of the final product and repeatability. The objective of the DM Work Group (WG) is to define a qualification testing program for these materials and final products in order to reduce associated end user's risks.

In the course of initial discussion the group determined the performance of the material (used for DM) and final product may be described as follows (Figure 1):

- Magnitude of differential pressure (dP) across the DM over time, i.e. how long can the material/design maintain a specific dP
- What mass loss per unit time can be expected for the DM
- Remnants, remaining liquid constituents or gasses released during dissolution may be considered part of the DM's performance

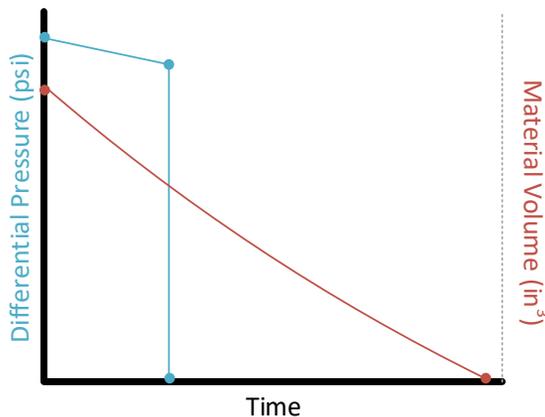


Figure 1: Example Performance Curve

The challenge for end users and suppliers is the significant variation in well conditions to which DMs will be exposed, influencing performance. Developing a standardized test method for benchmarking performance of the DMs at the material level may provide a correlation to the final product's performance. Further discussions amongst industry experts and evaluation of experimental data are required to develop a possible correlation. Currently, the scope of this group will focus on metallic and polymer solid materials, and exclude particulates such as fluid diverters.

DM WG is looking to get more experts into the WG in order to build on your expertise and accelerate the development of this RP to aid the industry in testing & safe deployment of DMs.