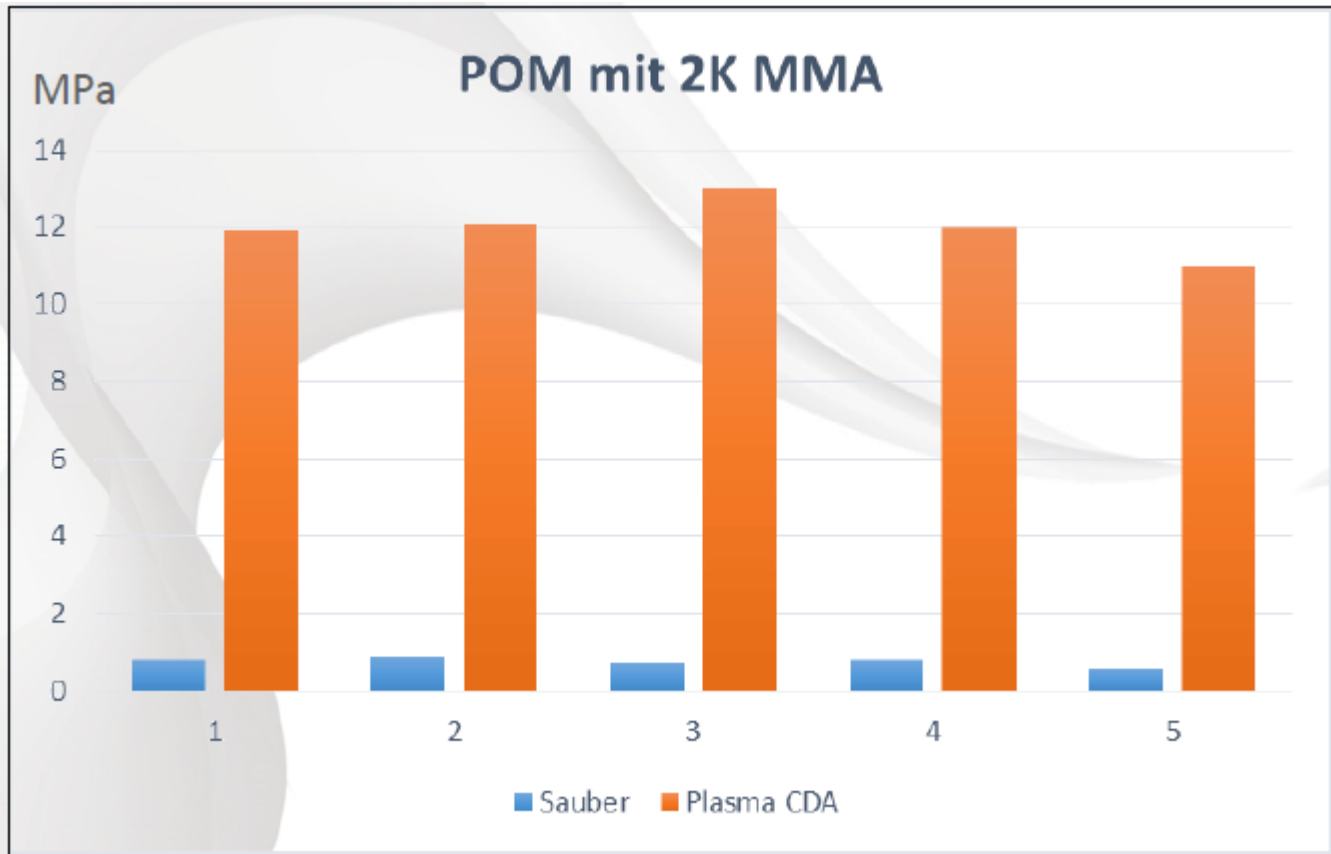


# How to bond POM or acetal plastic

**Polyoxymethylene (POM)** is a high density thermoplastic, also called **acetal** or polyacetal. Brand names include Delrin, Ultraform and Hostaform\*. It is often used as an engineering grade plastic, especially for precision parts. POM is extremely solid, hard and stiff in a wide temperature range. It maintains its high ductility up to -40°C and has excellent abrasion and heat resistance, a low friction coefficient, good electrical, dielectrical and lubricant properties, and permits only minimal water absorption. POM is processed via injection molding, extrusion, extrusion blow molding or machining.

POM has a low surface energy of ~36mN/m and therefore *is typically very difficult to bond*. Surface treatment will improve adhesion and bonding results significantly. Our partners Relyon Plasma's test series show that plasma treatment can increase adhesion by a factor of 10.

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The chart shows the increase in bond strength of five samples – one set have been simply cleaned, the second set have been plasma treated. They were bonded with a two part [methyl methacrylate adhesive](#), although other adhesive chemistries can be tested, including [epoxy structural adhesives](#) and [cyanoacrylate adhesives](#).

We have [plasma equipment from Relyon Plasma](#) here in our [Technology Centre](#), suitable for both

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manual applications and inline processes. Combine this with one of our adhesives for successful bonding of POM or acetal plastic.

\* Trademarks acknowledged

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