HIGH PERFORMANCE POLYMERS

RadiciGroup metal replacement solutions for the water management sector



RadiciGroup High Performance Polymers is a global company active in the development and production of PA6 and PA66 engineering polymers that are important standard materials for many markets. Yet, for special applications where higher performance is required, RadiciGroup offers product lines with superior properties, such as **RADILON® DT** (PA612) and **RADISTRONG® AROMA** (specialty PA).

Polymers for applications in contact with potable water are becoming more and more common, and there is increasing demand for safe systems from the building industry. Polymers can provide a perfect compromise between cost and long-term properties, keeping the quality of the water high even in critical conditions.

RadiciGroup are capable of achieving the most important potable water approvals, so as to serve as replacements in a number of applications that until now have used brass and metal alloys.



*In relation to moisture absorption

Our **RADILON® DT** and **RADISTRONG® AROMA** grades – long-chain polyamides and specialty polyamides, respectively – show better properties and increased hydrolysis and chemical resistance, compared to the well-known standard materials.

These polymers offer the following benefits, with respect to standard metals alloys:

- Better chemical resistance
- Compliance with lead limits
- Cost reduction
- Ease of assembly









RADISTRONG® AROMA

RADISTRONG® AROMA is a family of high-performance polyamides that bridge the performance gap between aliphatic polyamides (PA6 and PA66) and higher performing aromatic polyamides (PPA). These polyamides achieve:

- Good aesthetic appearance of moulded parts and ease of moulding
- Slower water absorption rate vs PA66
- Higher mechanical properties and better weld lines



RDS AROMA RV500RKC2 Creep Curves - $\epsilon(t)$ - 23°C RH50

RDS AROMA RV500RKC2 Creep Curves - ε(t) - 80°C DAM



CREEP CURVES. The graphs show the creep deformation over time of two samples under the stress of a constant load at a defined temperature. Numerous data are available for different sample conditions.

RADILON[®] DT

RADILON® DT PA612 is a long-chain polyamide produced from hexamethylenediamine and dodecanedioic acid. It is an optimal solution for applications in contact with water, because, in comparison with PA66, it shows:

- Higher chemical resistance
- Better hydrolysis resistance
- Increased dimensional stability
- Lower moisture absorption



CREEP CURVES. The graphs show the creep deformation over time of two samples under the stress of a constant load at a defined temperature. Numerous data are available for different sample conditions.



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