COMPARISON CHART
FRP VS PP

ARGAL s.r.l. CHEMICAL PUMPS

TAB. **5024** sheet 1/1

CHARACTERISTIC	FRP	PP
Fluid heat resistance	FRP has long term heat resistance up to 100°C	PP has long term heat resistance up to 70°C
Environmental temperature resistance	FRP has long term resistance up to -30°C	PP has long term resistance up to 0°C
Fire retardancy	FRP is available in fire retardant versions and is available for low smoke and low smoke toxicity.	PP is highly flammable with very high smoke contributions and smoke toxicity.
Thermal behaviour	FRP has limited thermal elongation. This allows more accurate assemblies tolerances and so better pumps efficiency performances.	PP, because of its very high thermal coefficient, requires engineering structure considerations that leads to reduce pump eficiency performances.
Pressure behaviour	FRP has limited pressure expansion. Fiberglass structure allows reduced thickness.	The amount of material is higher than FRP because of more thickness needed to counteract pressure action.
Abrasives behaviour	FRP is available in abrasive version to pump abrasive fluids.	PP is not adequate for abrasive fluids.
Chemical resistance	FRP cover a wider range of fluid that can be pumped without its chemical deterioration.	PP can pump a limited number of aggresive fluids. PVDF is the multipurpose choice for chemicals.
Ahestetical surfaces	FRP is light brown coloured after production process (selling standard). FRP can be painted with desired color.	PP is available in not only one colour after production process. The surfaces are smoother than the FRP ones.
Maintenance works	FRP can be repaired on site with minimal field tools.	PP maintenance operations are more complex and could need expert welders workers.