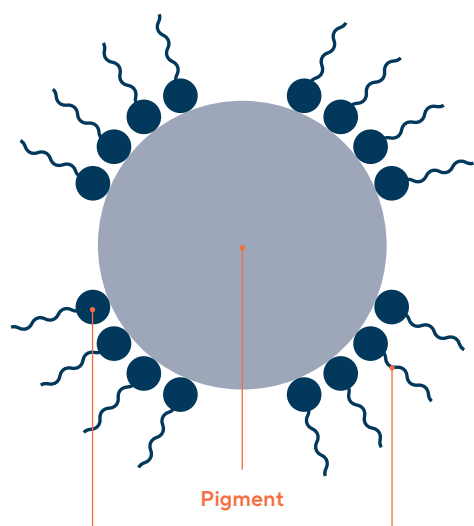


Chemical mastery at your hand

Hyper dispersant series for ceramic technology

Fluijet® is a hyperdispersing polymer family used in the grinding process to reduce viscosity and grinding time. Moreover it guarantees higher stability on suspension of pigments and raw materials in solvent and water borne inks.



Fluijet backbone (anchoring group)
Interacts strongly with the acid pigment surface.

Fluijet polymeric chains
It contributes to the stabilization of the Pigment in the solvent media, Depending on its polarity.

How is a hyper dispersant designed?

Fluijet® series are two-component structures. The anchoring group (Fluijet backbone) provides strong adsorption onto the pigment surface. Polymeric chains provide the system stabilization. Thanks to a particular combination between the anchor groups and the polymeric chains, the efficiency of **Fluijet®** in different solvent media is achieved. Moreover there's the possibility to customize the polymer according to technical needs.

How does Hyper dispersant work?

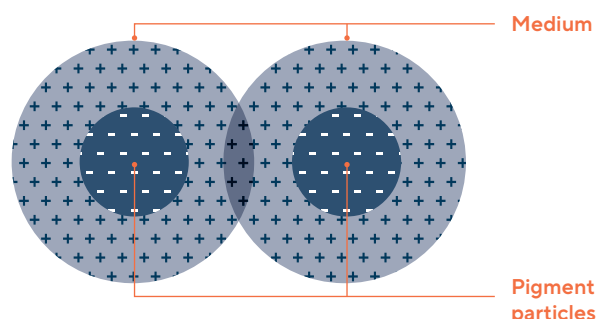
The wetting and dispersing additive surrounds the pigment particles and builds a crown creating a certain volume around them which prevents the particles from approaching each other. In this sense, **Fluijet®** has two fundamental roles:

- improved pigment dispersion
- reduce interparticulate attraction within that dispersion

Our Fluijet® acts by electrostatic and steric stabilization:

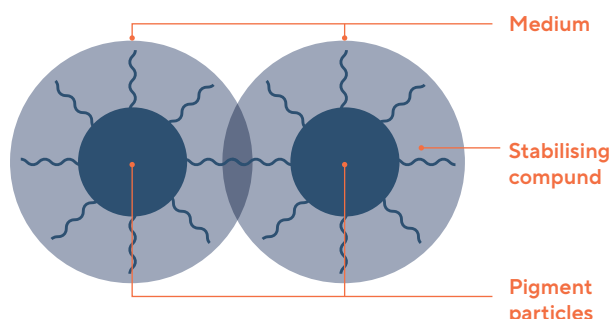
Electrostatic stabilization

It occurs when equally-charged portion of pigment surface come into contact with another one. Two particles having the same charge give a repelling effect preventing from agglomeration.



Steric hindrance stabilization

A pigment is said to be sterically stabilized when the surface of the solid particles are completely covered by polymers. This physical distance created prevents from particle agglomeration.



In the last years Lamberti has focused R&D not only on solvent base products but also on water based and water compatible hyperdispersants, due to strong commit-

ment to **Responsible Care** and driven by the market steering force towards environmentally friendly chemicals and manufactured products.

The product range				
Series	Application	Features and benefits	Features and benefits	Technologies
Fluijet	Solvent borne systems	<ul style="list-style-type: none"> • Strong reduction of viscosity • Excellent dispersing power • High stabilizing effect 	Non ionic polymer	Oleochemical
Fluijet W	Water based inks	<ul style="list-style-type: none"> • High Zeta Potential (more stable dispersions) • Very good action in viscosity reduction 	Different anchoring groups (anionic/non ionic/aromatics)	Combine acrylic and oleochemical
Fluijet G	Inkjet glass systems	<ul style="list-style-type: none"> • High dispersion in polar solvent media • No residue at glass burning temperature 	Polyurethane modified polymer	Polyurethanes

Additionally, the following products **complete the range** of additives for our digital solutions:

Printojet. Solvents & Media to grind organic and inorganic stains/pigments until sub-micron particles size, to formulate inks to be applied by means of inkjet printing.

Tensiojet. Family of special surfactants for surface tension adjustments, leveling action and anti hydrorepellency.

Viscojet. Rheology modifier, mix of solvents use to increase the viscosity of the ceramic ink for inkjet application. Can be used as a dilution medium, after grinding a pigment concentrate, in order to achieve the final ink parameters.