

New dispersant for Paint

TiloSperse 5016

TiloSperse 5016 is a new dispersant developed for low polarity paint systems to enhance the flow. Due to increasingly strict VOC regulations, producers are forced to decrease the use of solvents in their products, which leads to more high solid products. The polarity of these high solid paints is decreasing due to incorporation of more low polarity binders. Together with the increase of pigments or fillers, formulations will have less flow.

TiloSperse 5016 is a new liquid product with lower polarity and viscosity compared to any existing dispersant for this application. Due to the decreased viscosity, pigment and filler loading can be increased while maintaining the viscosity specifications. The stability of these high solid formulations is improved because of better compatibility with binders and solvents.

TiloSperse 5016 has a high level of renewable content and therefore paint producers are able to increase their renewable content of their paint formulations. TiloSperse 5016 is 100% active and will not contribute to the total VOC of a paint formulation.

Summarized benefits of TiloSperse 5016:

- Liquid product at room temperature
- 100% active material
- High renewable content
- Improved flow characteristics
- Increased pigment and/or filler loading
- Compatibility with binders and solvents

Application test TiloSperse 6464

Table 1: Flow index* TiloSperse 5016 versus Reference product

<u>Pigments</u>	<u>TiloSperse 5016</u>	<u>Reference product</u>
Special Black 100 (Degussa)	1.054	2.044
Special CB#1 (Shanghai)	1.056	1.771
PR101	1.054	2.285
PY42	1.058	2.167
PW6	1.026	1.450

*Flow index = Flow 2 hrs / Flow 48 hrs (i.e. high Flow Index = less flow)

As can be seen in Table 1 TiloSperse 5016 has better flow behaviour than the reference product for all tested pigments. The concentration of pigment or fillers can be increased making the formulations more economical. TiloSperse 5016 gives more equal flow indexes for different pigments, which means less adjustments for different formulations are required.

Table 2: Colour strength TiloSperse 5016 versus Reference product

<u>Pigments</u>	<u>TiloSperse 5016</u>	<u>Reference product</u>
Special Black 100 (Degussa)	++++	+
Special CB#1 (Shanghai)	+++++	+
PR101	+++++	++
PY42	+++++	++
PW6	+++++	+++

Table 2 clearly shows superior performance of TiloSperse 5016 compared to the reference product.

The combination of the excellent flow characteristics and the superior colour strength allows for cost as well as performance improvements.