STEER ANNOUNCES TECHNOLOGY TO HELP MANUFACTURERS ENHANCE PRODUCT APPEARANCE, QUALITY

Bangalore, India, October 05, 2015 — STEER, creator of materials platform technology that transforms and functionalises materials in the fields of plastics, pharmaceuticals. food & nutraceuticals, biomaterials and bio-refining, today announced the development of advanced technology and know-how to process effect pigment master batch with minimum damage to the mica structure. This is a welcome relief for manufacturers struggling with issues related to product appearance, quality and higher reject rates.

Effect pigments are used in thermoplastics to produce products with an aesthetically pleasing appearance. However, because of the sensitivity of the mica structure, damage occurs to the pigment during compounding, particularly during master batch production, where high volumes of free powders are introduced into the extruder.

Speaking on *Processing Mica-based Pigments*, Robert Roden, Head - Global Compounding and ADC, STEER, said, “Pre-wetting of the pigment is particularly important prior to dispersion. Effective wetting is achieved through the use of proper mixing attributes, including elongation, laminar, and surface renewal, and by maintaining a low melt viscosity. For dispersive mixing the use of standard two lobe kneading blocks should be avoided due to their characteristic shear peaks and non-homogeneity of mixing energy input. Excessive energy input and damage to mica pigment cannot be avoided.”

Four distinct and important steps were adopted while processing effect pigments into a compound— Wetting, Dispersion, Distribution, Stabilising. STEER’s Omega 1.71 Do/DI platform technology with low shear signature was customized for precise implementation of the required steps to reduce pigment damage and wastage, protect quality and ensure an effective and economical product.

Product quality is improved through the utilisation of fully intermeshing multi-lobe mixing elements, such as STEER’s patented Fractional-Lobe special elements; these significantly reduce or eliminate shear peaks and possess highly efficient task-specific mixing functions. Moreover, pigment distribution, or homogeneity, is important to ensure that there is a uniform surface appearance in molded parts. STEER’s mixing elements possess excellent dispersive mixing characteristics so that a separate distribution process section is not required.

“For additional distributive mixing STEER”S special self-wiping elements with fully intermeshing characteristics to prevent stagnation and degradation of the resin is used. This reduces the reject rate of the final molded part by reducing color body formation”, added **Roden**.

About STEER:

STEER is a creator of materials platform technology that effectively transforms and functionalises materials in the field of plastics, pharmaceuticals, food & nutraceuticals, biomaterials and biorefining. Founded in 1993 by Dr. Babu Padmanabhan with a vision to **steer a new world**, STEER today has 5 global offices and 10 satellite offices, serving over 39 countries and employs over 500 gifted engineers, scientists and technicians across the globe.

With 33 patents for breakthrough innovations, STEER is committed to the design, creation and implementation of advanced technologies, components, elements, peripherals and applications that help in the creation of safer, stronger, lighter, more sustainable products.

Key to the company's success has been its ability to combine advanced technology with technical expertise and an in-depth knowledge of sciences in its field of focus. STEER's state-of-the-art Development Centers are centers of progressive research where competence arising from R&D is tested in real life scenarios, under actual production conditions. STEER Development Centers partner with researchers and manufacturers in a number of different ways, including;

1. the development of newer, more sustainable materials

2. the development of high quality materials, with unique characteristics and properties, to help create stronger, lighter, safer products.

3. optimisation of existing processes / formulations to enhance efficiency and improve the overall quality of end-products.

To learn more about STEER, visit www.steerworld.com

For further information on this press release, please contact:

STEER World
Sonia Bhatnagar
sonia.bhatnagar@steerworld.com

Shyam Sundar S Pani
shyam.pani@steerworld.com

Imprimis PR
Nitheen AS
nitheen@imprimispr.com

Parul Vaid
pvaid@imprimispr.com