FEBAC Europe BV
Röntgenweg 15
NL-6101 XD ECHT
Tel. +31 (0)475 39 62 97
Fax +31 (0)475 39 62 98
E-mail info@febac.eu
Web www.webshop-febac.eu

Frequently asked questions about working with cerium oxide

"The slurry/powder is not as dark and is therefore of poor quality".
The colour of the polishing powder depends upon how much Praseodymium (a rare earth element) is present. Its content does not affect the polishing performance of cerium oxide.

"The slurry looks and/or feels weak or is not as creamy as usual".
Suspension additives make the slurry look and feel different. These additives are made in order to get better polishing performance and to allow the cerium to be easily cleaned away from the glass after polishing. To control the concentration, it is recommended that a Baumé gauge is used. (Such device can be ordered from various suppliers). Any other method is just not reliable.

"I seem to add more cerium powder than my old powder in order to get the same concentration".
Febac ceriumoxyde is composed of different ingredients. **Febac** ceriumoxyde is generally lighter in weight so whilst it may seem you are adding more by volume you are not by weight. Note that cerium oxide is sold by the kilo and not by the liter.

"The slurry settles when the mixer is switched off".
Cerium oxide is heavier than water and will settle in the bottom of the tank when the pump/machine is switched off. **Febac** ceriumoxyde however settles softly, which enables it to be quickly re-suspended once the machine is switched on again.

"I have mixed up some fresh slurry to the correct concentration but the powder remains on the bottom of the tank".
For optimum mixing result, one must sprinkle the powder onto the water whilst the pump is running. The powder will not mix well if there is no agitation or if the water is added after the powder.

"What is the correct temperature for polishing".
There is no correct temperature but for better polishing performance the slurry should be within 25°C to 45°C. At low temperatures the polishing performance may be poor. At higher temperatures evaporation of water will occur which may lead to incorrect concentration, and/or tool malfunction resulting in poor performance and possibly machine corrosion. In hot climates it may be necessary to run at lower concentrations in order to reduce the temperature. This will usually result in a reduction in machine speed. Alternatively, the use of cooling or "chillers" may be necessary.

"How can I stop the PH-value from rising".
During polishing the PH-value rises naturally from 9 to 11. **Febac** ceriumoxyde is formulated to work in these conditions. If the PH-value must be controlled it is advised that you contact our office for further advice.

"The slurry is foaming excessively in the tank".
There are several causes of foaming;

- Poor tank maintenance and lack of cleaning.
- Cross contamination of coolant from the grinding stage.
- Too high cerium concentration.
- Poor water quality.

If the problem cannot be solved, an approved anti-foaming agent should be purchased.

"There is a bad smell coming from the polishing tank".
The bad smell is usually caused by felt waste and coolant contamination. The slurry tank should be cleaned on a regular basis and efforts should be made to reduce the contamination.