Zirconium Oxide Nanoparticle Dispersion is a material of excellent technological significance and it is a white crystalline oxide of zirconium. It has various properties such as fine natural color, high stability, high toughness, high chemical strength, desirable corrosion, chemical, and microbial resistance. ZrO$_2$ manifests plenty of oxygen vacancies on its surface with wideband gap and it is called as P-type semiconductor.

**Quick Facts**

- **Purity**: 99.9 %
- **APS**: 45-55nm
- **Concentration**: Customer requirement
- **Dispersing Agent**: Organic Solvent (DMF), IPA, Ethanol, Water (ddH$_2$O)
- **Form**: Slurry, Suspension, Dispersion, Colloidal

**Properties**

- Photo-catalytic
- Chemical inertness
- Excellent thermal stability
- High hardness
- Excellent optical

**Applications**

- Industrial coating materials for optical films
- Usually have hydrophobic surface properties
- Medical devices, chemicals and coatings
- High-temperature and corrosion resisting components
- Piezoelectric element, ion exchange, solid dielectric
- Abrasive material, insulating material
- Fire-retarding material