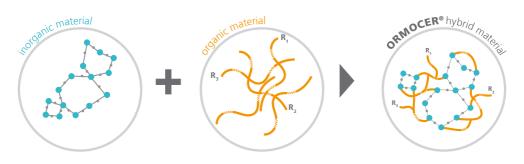


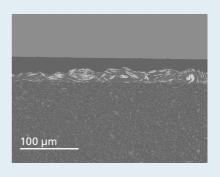
H₂ and O₂ Barrier Coatings

When hydrogen is produced, for example by the electrolysis of water, it must be separated from oxygen in the water cycle to prevent an explosive reaction. In addition, gas-carrying containers and pipelines must be equipped in a way that the migration of the gases is reduced, so that on the one hand **pressure losses are minimized** and on the other hand **corrosion phenomena are avoided**. For this purpose, the base materials have to be equipped with new types of coatings. **Combined oxygen/hydrogen barrier layers** based on the ORMOCER® material are suitable for this. These are already being used successfully in other applications and enable an adaptable material solution for products and applications in the hydrogen sector.



Benefits of ORMOCER® coatings

- Highly effective
- Easily scalable
- Already tested in many areas for different applications
- Standard application procedure
- Inert material, chemical stable, mechanical durable
- Barrier can be combined with hydrogen sensor
- Conductibility can be integrated



Contact

Dr. Ferdinand Somorowsky | Head of Chemical Coating Technology Fraunhofer ISC | Neunerplatz 2 | 97082 Würzburg | Phone +49 931 4100-256 ferdinand.somorowsky@isc.fraunhofer.de www.ormocer.de