

FM INDUSTRIES ADVANCED COATINGS® PRODUCTS & SERVICES

Products & Services	Products and Services Description	Materials	Erosion Resistance	Corrosion Resistance	Temperature Resistance	Purity
LY-100	1 st Generation legacy Yttria coatings	Yttrium Oxide	Good	Fair	< 120 °C	High
LY-102	2 nd Generation Yttria coatings with improved density	Yttrium Oxide	Very good	Fair	< 120 °C	Very High
LY-103	3 rd Generation product builds on the improved density of LY-102 and combines a higher purity material. At 99.98%, this is our highest purity coating	Yttrium Oxide	Very good	Good	< 140 °C	Ultra High
LY-103HT	High Temperature resistance version of LY-103	Yttrium Oxide	Fair	Fair	> 300 °C	Ultra High
LY-113	4th generation coating designed for further particle reduction and longterm process stability	Yttrium Oxide	Very good	Good	< 140 °C	Ultra High
LY-113B	5th generation densified Yttria - Unlike white color yttria, this coating is black and is our densest yttria coating offering	Yttrium Oxide	Best	Very Good	< 120 °C	Ultra High
ALC-CP4® and ALC-CP6	4 th generation FSPS® composite coating services. These services utilizes an Architecturally Layered (ALC) interface coating to maximize temperature and corrosion resistance. The co-phase layer is then capped with our 3 rd generation yttria (LY-103) coating with custom treatments to maximize plasma erosion resistance and purity.	Proprietary blend base layer. Yttrium Oxide	Very good	Best	> 300 °C	Ultra High
ALC-CP5®	5 th generation composite spray coating services. Like ALC-CP4®, this service utilizes an Architecturally Layered (ALC) interface coating to maximize temperature and corrosion resistance. The co-phase layer is then capped with our densified yttria (LY-11B) coating with custom treatment to provid the highest resistance to plasma erosion.	Proprietary blend base layer. Yttrium Oxide	Best	Best	> 300 °C	Ultra High
SPY-100®	First Generation "Small particle" yttria coating services. These services with custom treatments provid twice as dense as LY-103 with a smooth as deposited surface topography for contamination control in semiconductor process tools.	Yttrium Oxide	Very good	Good	< 140 °C	Ultra High
ALC-SP®1	First generation "Small particle" composite coating services. These services utilizes an Architecturally Layered (ALC) interface coating to maximize temperature and corrosion resistance. The co-phase layer is then capped with our SPY-100 coatings and custom treatments to maximize plasma erosion resistance and purity.	Proprietary blend base layer. Yttrium Oxide	Very good	Best	> 300 °C	Ultra High
LZ-100/200	Yttria Stabilized Zirconia - Fully Stabilized. This material has very good resistance to Chlorine environments and wet cleaning.	YSZ	Fair	Very Good	> 200 °C	High
LTP-100/200	Proprietary co-phase blended coating	Proprietary blend material	Good	Best	> 300 °C	High
LA-60	High Purity Alumina coatings and treatments for dielectric applications	Aluminum Oxide	Poor	Fair	< 120 °C	Very High
SI-100	Silicon coating as a bond layer for Si based materials. Can also be used as an embedded electrode or surface protection customised to reduce contamination.	Si	Poor	poor	> 300 °C	High

