ErgonArmor™

Power Plant Systems

FGD & COAL PROCESSING AREAS

FGD process vessels and containment areas of coal-fired power plants demand sophisticated corrosion protection. For over 50 years, companies have relied on ErgonArmor products. Our lining systems resist acidic conditions and abrasion, providing the protection you need in these lining applications.

Coal handling equipment such as conveyors, silos, bunkers and the like require heavy duty protection against dilute acids, impact and constant abrasion. ErgonArmor's high wear machinable repair compounds are tailored to excel in this type of environment , offering long-term performance.

When initial cost considerations drive the corrosion resistant lining selection process, power utilities turn to ErgonArmor **PENNCOAT™, PENNTROWEL™** and **Novocoat Linings**, which incorporate flake fillers, mat reinforcement and state-of-the-art resin technology. These linings will find applications in other parts of the plant, including tank linings, neutralization basins and cooling tower basins.

ErgonArmor General Power Plant Systems Guide

Area	Substrate	System Recommendations
Coal Hoppers/Silos	Steel	Novocoat Ceramic Carbide 4910 resurfacer, 2 coats of Novocoat SP2000AR Abrasion Resistant Ceramic Coating
Coal Silo	Concrete	SC1100 Concrete Primer, resurface with Novolite Repair Mortar, 2 coats of Novocoat SP2000AR Abrasion Resistant Ceramic Coating, resurface with EP3920 Machinable Grade or Novocoat Ceramic Carbide 4910
Coal Slurry Tanks	Steel	2 coats of Novocoat SP2000AR Abrasion Resistant Ceramic Coating, repair defect with EP2920 Flexible Paste as needed, 2 coats
Cooling Tower Basins	Steel	Novocoat SP2000AR Abrasion Resistant Ceramic Coating
Coal Conveyors	Steel	R180 DTM Epoxy
Water Intake Equipment - Immersion	Steel	Repair with EP3920 Machinable Grade, topcoat with SP2000W Series or Novocoat SP2000AR Abrasion Resistant Ceramic Coating
Pennstocks - Interior	Steel	SP2000W Series or Novocoat SP2000AR Abrasion Resistant Ceramic Coating
Tanks - Interior (Fuel or Water)	Steel	SP2000W Series

*Nothing included for FGDs

Typical Lining Systems for Wet FGD Process Tanks

Tank Designation by Suspended Solids (%)	Lining System*	Resin Type**	Lining Description	Application Method	Target Thickness	Thickness Range
SUSPENDED SOLIDS: 0-15%						
Bottom & Shell Wall	1. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat Mica Flake Filled Topcoat	Trowel Basecoat Spray Topcoat	60 mils	50 – 80 mils
Bottom & Shell Wall	2. Novocoat SC3300 Series	NE	Novolac Epoxy Basecoat Novolac Epoxy Topcoat	Spray	40 mils	30 – 50 mils
Baffles	1. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat Mica Flake Filled Topcoat	Trowel Basecoat Spray Topcoat	60 mils	50 – 80 mils
Baffles	2. Novocoat SC3300 Series	NE	Novolac Epoxy Basecoat Novolac Epoxy Topcoat	Spray	40 mils	30 – 50 mils
Roof Underside	1. PENNCOAT™ 340 Lining	VE	Mica Flake Filled Basecoat Mica Flake Filled Topcoat	Spray	40 mils	30 – 50 mils
Roof Underside	2. Novocoat SC3300 Series	NE	Novolac Epoxy Basecoat Novolac Epoxy Topcoat	Spray	40 mils	30 – 50 mils
SUSPENDED SOLIDS: 15-30%						
Bottom +3ft Shell Wall + Baffles	1. PENNTROWEL™ VE LF	VE	Silica/Alumina Filled Fiberglass Reinforced	Trowel Basecoat Trowel Topcoat	155 mils	125 – 200 mils
Shell Wall	1. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat Mica Flake Filled Topcoat	Trowel Basecoat Spray Topcoat	60 mils	50 – 80 mils
Roof Underside	1. PENNCOAT™ 340 Lining	VE	Mica Flake Filled Basecoat Mica Flake Filled Topcoat	Spray	40 mils	30 – 50 mils
SUSPENDED SOLIDS: >30%						
Bottom +3 ft Shell Wall + Baffles	1. PENNTROWEL™ VE LF	VE	Silica/Alumina Filled Fiberglass Reinforced	Trowel Basecoat Trowel Topcoat	155 mils	125 – 200 mils
Shell Wall	1. PENNTROWEL™ VE LF	VE	Silica/Alumina Filled Fiberglass Reinforced	Trowel Basecoat Trowel Topcoat	155 mils	125 – 200 mils
Shell Wall	2. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat Mica Flake Filled Topcoat	Trowel Basecoat Spray Topcoat	60 mils	50 – 80 mils
Roof Underside	1. PENNCOAT™ 340 Lining	VE	Mica Flake Filled Basecoat Mica Flake Filled Topcoat	Spray	40 mils	30 – 50 mils
Roof Underside	2. Novocoat SC3300 Series	NE	Novolac Epoxy Basecoat Novolac Epoxy Topcoat	Spray	40 mils	30 – 50 mils

* ErgonArmor lining system options presented above are guidelines. Final recommendations will be made based on specific design conditions. Other ErgonArmor linings not listed may apply in some cases.

** Resin Types: VE=Vinyl Ester, NE=Novolac Epoxy

Blackhawk™ Corrosion Engineering™ Ertech™ Novocoat™