



# 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 4900 Ceramic Carbide resurfacer, 2 coats of Novocoat SP2000AR Ceramic Coating
Coal Silo	Concrete	Novocoat SC1100 Primer/Sealer, resurface with Novolite Repair Mortar, 2 coats of Novocoat SP2000AR Ceramic Coating, resurface with Novocoat EP3900 Machinable Paste or Novocoat 4900 Ceramic Carbide
Coal Slurry Tanks	Steel	2 coats of Novocoat SP2000AR Ceramic Coating, repair defect with Novocoat EP2900 Flexible Paste as needed, 2 coats
Cooling Tower Basins	Steel	Novocoat SP2000AR Ceramic Coating
Coal Conveyors	Steel	Novocoat DTM Epoxy
Water Intake Equipment - Immersion	Steel	Repair with Novocoat EP3900 Machinable Paste, topcoat with Novocoat SP2000W Lining or Novocoat SP2000AR Ceramic Coating
Pennstocks - Interior	Steel	Novocoat SP2000W Lining or Novocoat SP2000AR Ceramic Coating
Tanks - Interior (Fuel or Water)	Steel	Novocoat SP2000W Lining

\*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
<b>SUSPENDED SOLIDS: 0-15%</b>						
Bottom & Shell Wall	1. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat	Trowel Basecoat	60 mils	50 – 80 mils
			Mica Flake Filled Topcoat	Spray Topcoat		
Bottom & Shell Wall	2. Novocoat SC3300 Novolac Epoxy Lining	NE	Novolac Epoxy Basecoat	Spray	40 mils	30 – 50 mils
			Novolac Epoxy Topcoat			
Baffles	1. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat	Trowel Basecoat	60 mils	50 – 80 mils
			Mica Flake Filled Topcoat	Spray Topcoat		
Baffles	2. Novocoat SC3300 Novolac Epoxy Lining	NE	Novolac Epoxy Basecoat	Spray	40 mils	30 – 50 mils
			Novolac Epoxy Topcoat			
Roof Underside	1. PENNCOAT™ 340 Lining	VE	Mica Flake Filled Basecoat	Spray	40 mils	30 – 50 mils
			Mica Flake Filled Topcoat			
Roof Underside	2. Novocoat SC3300 Novolac Epoxy Lining	NE	Novolac Epoxy Basecoat	Spray	40 mils	30 – 50 mils
			Novolac Epoxy Topcoat			
<b>SUSPENDED SOLIDS: 15-30%</b>						
Bottom +3ft Shell Wall + Baffles	1. PENNTROWEL™ VE LF	VE	Silica/Alumina Filled	Trowel Basecoat	155 mils	125 – 200 mils
			Fiberglass Reinforced	Trowel Topcoat		
Shell Wall	1. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat	Trowel Basecoat	60 mils	50 – 80 mils
			Mica Flake Filled Topcoat	Spray Topcoat		
Roof Underside	1. PENNCOAT™ 340 Lining	VE	Mica Flake Filled Basecoat	Spray	40 mils	30 – 50 mils
			Mica Flake Filled Topcoat			
<b>SUSPENDED SOLIDS: &gt;30%</b>						
Bottom +3 ft Shell Wall + Baffles	1. PENNTROWEL™ VE LF	VE	Silica/Alumina Filled	Trowel Basecoat	155 mils	125 – 200 mils
			Fiberglass Reinforced	Trowel Topcoat		
Shell Wall	1. PENNTROWEL™ VE LF	VE	Silica/Alumina Filled	Trowel Basecoat	155 mils	125 – 200 mils
			Fiberglass Reinforced	Trowel Topcoat		
Shell Wall	2. PENNCOAT™ 321/340 Lining	VE	Glass Flake Filled Basecoat	Trowel Basecoat	60 mils	50 – 80 mils
			Mica Flake Filled Topcoat	Spray Topcoat		
Roof Underside	1. PENNCOAT™ 340 Lining	VE	Mica Flake Filled Basecoat	Spray	40 mils	30 – 50 mils
			Mica Flake Filled Topcoat			
Roof Underside	2. Novocoat SC3300 Novolac Epoxy Lining	NE	Novolac Epoxy Basecoat	Spray	40 mils	30 – 50 mils
			Novolac Epoxy Topcoat			
* 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						