

Quality Filtration for Power Plants

EcoStar

EcoStar filter bags provide extended life time in demanding conditions. EcoStar bags are available for medium and high temperature applications.

EcoStar needle felt structure is based on different temperature resistant polymers stapled to a scrim support fabric using needling technology. Different raw materials can be used alone or combined together. The felt gets a special chemical treatment which consists of PTFE impregnation with high solids content.

EcoStar structures

- Fibers and scrim of same material
- Blended fibers
- PPS scrim
- Glass scrim

EcoStars are divided into two different groups depending on their temperature resistance:

EcoStar MT

- Medium temperatures (up to 180°C)
- Polyphenylen sulfide (PPS)



EcoStar HT

- High temperatures (up to 250°C)
- Polyimide (P84®*)
- Polytetrafluorethylene (PTFE)



The wide EcoStar range allows finding the best solution for every specific application. With the right choice of raw materials we ensure trouble free running of your filtration process.



EcoStar bags

EcoStar benefits

- Excellent filtration efficiency
- Exceptional dust cake release which allows highest air flow at a low and stable pressure drop
 - Low pressure drop results in energy saving
- Resistance to high temperature peaks
- Dimensional stability of bags
 - Easier and faster assembling and disassembling of bags and support cages
- Extended life time compared to standard needle felts
- Excellent cleaning properties



Clean air chamber filter unit after start-up operation

Versatile laboratory services

Laboratory analyses of raw materials and finished goods play a very important part in Valmet's operations. Our in-house laboratory services include, among others, cross section analysis for dust penetration, strength and elongation tests and wear studies of bags. Extensive filter fabric R&D is the key to innovations and continuous improvements.

With EcoStar filter bags the filtration process runs efficiently and fulfils the environmental expectations.



Fitting for hole plate assembly test.

EcoStar range

Raw material		Surface finishing				Chemical finishing	
Dust side	Scrim	Clean side	Calendered	Singed	Glazed	Coating	PTFE impreg.
PPS	PPS	PPS	X	X	X	X	X
PPS	Glass	PPS	X	X	X	X	X
P84	Glass	P84	X	X	-	X	X
PTFE/P84®	Glass	PTFE/P84®	X	X	-	X	X

EcoStar raw material characteristics

	PPS polyphenylene sulfide	P84® polyimide	PTFE polytetrafluoroethylene	e-Glass
Working temp (°C) Dry heat/peaks	180/210	250/260	250/280	260/290
Resistance to alkalis	Excellent	Fair	Excellent	Fair
Resistance to mineral acids	Excellent	Very good	Excellent	Very good
Resistance to organic acids	Excellent	Very good	Excellent	Very good
Resistance to oxidizing agents	Fair	Very good	Excellent	Excellent
Resistance to organic solvents	Excellent	Excellent	Excellent	Very good

*P84 is registered trade mark of Lenzing Ag.