

Project Questionnaire

Furnaces



This Emisshield Project Questionnaire is essential to the Emisshield Project Evaluation and Proposal process.
Please disregard items that are not relevant to your process or Prospective Emisshield Application.

Customer Information:

Name:		
Address:		
Contact Person:		
Title, Email:		
Phone #:	(☎)	(☎)

General Project Information:

Project Name:

Project Type:

Furnace Type & Manufacturer (e.g. U-fired, cross fired, tunnel kiln, roller kiln, chamber furnace, pusher furnace, batch kiln....):

Project Furnace Location/Address:

Intended Application Date:

Existing Operational Issues, if any:

Detailed Desired Performance Results:

1.
2.
3.
4.
1.
2.
3.
4.

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Emisshield® Project information:

Please note that in continuous kilns Emisshield is applied from ~600°C in the preheat zone until the end of the burner zone on side walls (above bottom of kiln cars in tunnel kilns or both underneath and above rollers in roller kilns and ceiling, in batch kilns on side walls and ceiling and also on the doors. Please specify these surfaces hereunder.

Substrate Type 1: & Substrate Manufacturer: (pls send datasheet)		Age/ Condition		Area 1 (ft ² or m ²):	
Substrate Type 2: & Substrate Manufacturer: (pls send datasheet)		Age/ Condition		Area 2 (ft ² or m ²):	
Substrate Type 3: & Substrate Manufacturer: (pls send datasheet)		Age/ Condition		Area 3 (ft ² or m ²):	
Substrate Type 4: & Substrate Manufacturer: (pls send datasheet)		Age/ Condition		Area 4 (ft ² or m ²):	

Additional Questions:

Operating mode (continuous, intermittent, ...)

Batch cycle time:

Interruption frequency / Cause:

Normal Heat up/Cool down rate days:

How many and type of Burner blocks:

Operating Temperature(s) (e.g. Bridge Wall
Temperature, load temperature at furnace exit etc.:

Max. temperature in furnace/kiln:

Excess O₂ in furnace:

Max. temperature excursions:

Reasons for excursions:

1. Heat Up:	2. Cool Down:
1. Bridge wall temperature:	
2. Load temperature at furnace exit:	
3.	

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Stack Temperature:

Stack Flow (Nm³/h):

Stack O₂ Level/Measurement Point Location:

Damper Position or speed of exhaust fan:

Fuel consumption / kg or ton product produced:

Next Two Scheduled Maintenance Shutdowns:

Annual Maintenance Costs:

Fuel Information:

Fuel Type & Atmosphere:

Annual Fuel Usage:

Fuel Cost (€/MWh):

Combustion Environment:

Abrasive:

YES or NO

Reason for abrasion:

Oxidizing:

YES or NO

Corrosive:

YES or NO

Type of corrosive Substance:

Product Information:

Annual Production (unit/year):

Product Value (€/unit):

Product rejection rate (%):

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Client Evaluation Team: (This Team will be responsible for implementing operational adjustments after coating and providing complete evaluation of baseline data before coating.)

<u>Name</u>	<u>Title</u>	<u>Email</u>	<u>Phone</u>
1.			
2.			
3.			
4.			

Emisshield Evaluation Team:

<u>Name</u>	<u>Title</u>	<u>Email</u>	<u>Phone</u>
1. Ing. Herbert Grünbichler, MSc, CRESS B.V.	Salesmanager Europe	herbert.gruenbichler@cressbv.nl	+43 676 57 98 795
2. Joost van Thielen, CRESS B.V.	CRESS Project Manager	joost.vanthielen@cressbv.nl	+32 495 60 08 47
3. Dr. John Olver, Emisshield, Inc.	President/CEO	John.olver@emissshield.com	+1.540.961.0999

Completed By: _____ Date: _____

This must be executed by the Customer for the Project to be considered and quoted.

Please attach the following to this completed questionnaire:

- Typical Temperature curve of the load and furnace atmosphere in the kiln/furnace
- Pictures of the furnace lining from previous maintenance stops from preheat and firing zones
- Drawings of the desired project and problem areas to be considered for Emisshield Application.
- Existing temperature data and all specific energy usage data for the Project.
- Please Provide – PFD and P&ID for the furnace, Programable Logic Controller (PLC) details and all set points and Control Loops.
- Please send us the datasheets of the substrate materials Emisshield is supposed to be applied on
- Please advise if this data needs to be covered by an NDA and we will properly execute.

Please feel free to contact Herbert Gruenbichler at <mailto:herbert.gruenbichler@cressbv.nl> with any questions regarding this form.