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# Fraunhofer UMSICHT

Fraunhofer Institute for Environmental, Safety and Energy Technology UMSICHT  
Institute Branch Sulzbach-Rosenberg

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**New Materials**

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# Department New Materials

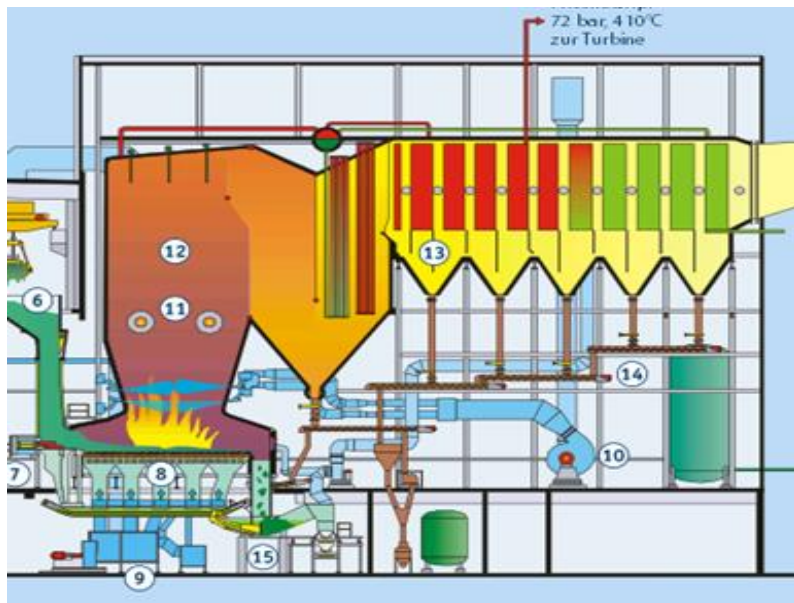


Corrosion- and wear-resistant coatings in various applications

Thermal spraying coatings on many different substrates and with the most materials



# Protection against corrosion, abrasion, wear, and surface functionalization/ modification



HCl  
SO<sub>x</sub>  
H<sub>2</sub>O  
CO  
NO



Waste Incineration Plant  
Bio Gas Plant



High temperature corrosion  
Corrosion under critical  
atmosphere

# Powder Metallurgy / Thermal Spraying

High variety of materials  
applicable



Many applications:  
e.g. automotive  
brake disk coating



# Thermal Spraying with metals

flexible coatings:  
textiles, fabrics,  
meshes, foams,  
paper, wood,  
temperature  
sensitive materials  
...



Functionalization (IR,  
antibacterial,...)  
heat protection  
Isolation,  
Conductivity  
Optical and haptic  
modification

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# Thank you very much for your kind attention!

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