I.BLU

Industries by Idealservice

CLEAN TECHNOLOGIES FOR DECARBONOZATION OF THE STEEL INDUSTRY

Bluair

Polymers for sustainable steelmaking

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Industries by Idealservice

I.BLU IS A NEW COMPANY ESTABLISHED BY IDEALSERVICE FOR DEVELOPING NEW INDUSTRIAL TECHNOLOGIES AND PROCESSES

TRADITIONAL OLD FOSSIL SOURCES IN STEELMAKING PROCESSES

The traditional fossil raw materials used in steel industries are derivatives of Coal.

The use of these sources is one of the main environmental pollution problems.

To reduce the impacts of the processes, the old technologies must be replaced with new green solutions.

WHICH CHANGES REQUIRES THE MARKET?

Economic and Sustainability goals in the future:

ENERGY SAVING SOLUTIONS

REDUCE CO2 AND DUST EMISSIONS

REDUCE FOSSIL RAW MATERIALS CONSUMPTION

(coal, coke, oil and gas)

The transition to new eco-sustainable raw materials, alternative to traditionals, is a primary pressing goal.

WHY MARKET IS CHANGING?

FOSSIL RM price increase

CO_2 Emissions rise

Strongly competitive market

EU-ETS +109% May 2018 (26,81)

Necessity to REDUCE coal consumption according to Paris Agreements

NEW ENVIRONMENT-FRIENDLY SOLUTION

Bluair the new clean technology for steel industry.
Bluair is a Polyolefins technical compound, developed for steel processes as a fossil raw materials substitute.

LOWER EMISSIONS

REDUCE ENERGY CONSUMPTION

SAVINGS IN SUPPLY COSTS

EuCertPlast

IPPR I.P.P.R Istituto per la Promozione delle Plastiche da Riciclo

,plastica seconda vita

BLUAIR TECHNICAL DATA

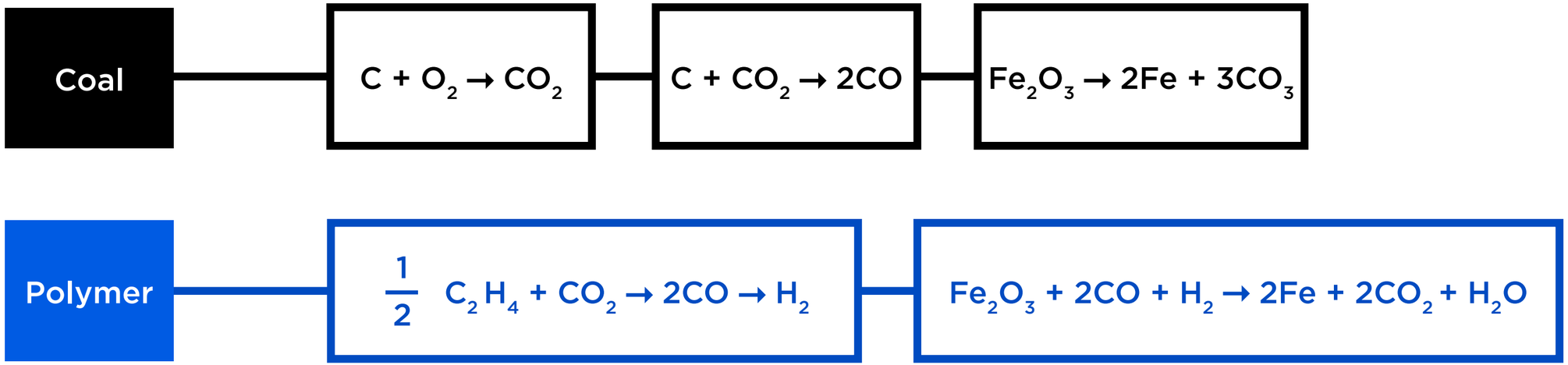
Bluair is a product and comply UNI 10667-17 specifications

Characteristics	Method	Particular conditions	Requirements
Net Calorific Value	UNI EN 15400	Dry sample after 4h at 105°C	≥ 30 MJ/Kg
Chlorine content (Cl)	UNI EN 15408	Dry sample after 4h at 105°C	≤ 2 %
Cadmium (Cd)	UNI EN 15411	Preparation according UNI EN 13656	≤ 8 mg/Kg
Lead (Pb)	UNI EN 15411	Preparation according UNI EN 13656	≤ 100 mg/Kg
Mercury (Hg)	UNI EN 15411	Preparation according UNI EN 13656	≤ 0,6 mg/Kg

Lower slag and steel bath pollutants like Copper, Cadmium, Chrome and Phosphorous;

Bluair can be supplied in different forms, for Injection or charge in the basket.

BLUAIR: WHICH REACTIONS?



For the same amount of Fe, CO_2 produced through the alternative process is less than the amount produced through the traditional one.

(Fonte: progetto SRA COREPLA-CONAI)

BLUAIR: BENEFITS IN EAF

Bluair

1. SLAG FOAMING EFFECT
2. TEMPERATURE INCREASES FASTER
3. DECREASE OF TAP-TO-TAP TIME
4. ↑ PRODUCTIVITY INCREASES
   ↓ STEEL PRODUCTION COST DECREASES
5. 3%-6% ENERGY SAVING
6. LOWER EMISSIONS, ENVIROMENT AND ECONOMIC BENEFITS

MARKET EXPERIENCES

voestalpine

has been using Bluair and Polymers in Linz for more 10 years.
In the world other steel Companies use Polymers.

ArcelorMittal

NIPPON STEEL & SUMITOMO METAL CORPORATION

SALZGITTER AG Stahl und Technologie

onesteel

In Europe, advanced experiments are underway for the use of Bluair,
which will lead to continuous industrial use within 1 year.

POLYOLEFIN IN EAF – HORIZON 2020

EU invests and promotes projects aimed at using new alternative sources also in the steel production processes

One example is POLYNSPIRE H2020 CE-SPIRE-10-2018:

One of the most important goals in this project is the valorisation of polyole fins as carbon source in the steel industry

This project has received funding from European Union's Horizon 2020 research and innovation programme under grant agreement No 820665.

In the future, the institutions will favor the use of these new sustainable sources and Bluair represents a concrete and already available industrial solution.

Thank you!

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www.iblu.it