

Material Highlight:

CURAS 90 S PF

Energy & Chemicals

Oil refineries, the chemical industry and the chemical waste processing industry demand high performance refractory products. Gouda Refractories has the products to match the strict specifications for all critical equipment.

Fluidized Catalytic Cracking is an extremely complex process and as a result, operators encounter numerous costly and difficult problems. For new equipment lined in a shop the installation is quite easy.



CCS
**>120
MPa**

Erosion
≤ 3 cc

Temp.
1.600°C

Mixing equipment and parts to be lined are close to each other so obstacles, distance accessibility are not an issue. It is getting more complicated if the installation is during a shutdown on site where lots of variables like accessibility, distance, multiple disciplines and activities are more standard than exceptions. These circumstances are demanding a reliable material to meet all requirements during these difficult, determined according to ASTM C704/C704M.

As part of a long history in production and installation of materials for the energy & chemical industry we found that there is a need of a product which can be easily installed with a high 'as-installed' quality: a new ultra-low erosion resistant material CURAS 90 S PF (single component), with and Erosion Loss (EL) of max. 3 CC.

The development focus for this material was easy installation and a good and long workability. The CURAS 90 S PF can be hand packed by "thumbing" and ramming.



CURAS 90 S PF advantages:

- Long workability
- Easy installation
- Easy surface finishing
- No slumping when working in vertical position / overhead
- Easy back filling of hexagons and others

Technical Background

The strength of Gouda Refractories' FCC material series are the result of the combination of state-of-the-art R&D programs and over forty years of field installation experience. The input from field installation by working under severe and extreme conditions, in combination with a high quality standard, makes the materials having reached the top segment in the industry. Experiences from the field are directly communicated to R&D and included in the development process.

Installation Advise

Filling of hex mesh hexagons (e.g. flex mesh and single component anchors systems) requires trained and skilled installers. Backfilling of a hexagon (or other type) is an important parameter. For the end user the quality of the installed material is of highest importance while at the same time progress is important to limit the shutdown duration.

With our CURAS 90 S PF both factors can be met: a high quality installation with a coverage of approximately 2 square meters per (experienced) installer per shift for shop lined materials and approximately 1 to 1.3 square meters for site installations. This all depends on the accessibility, transport distance, and other activities in and around the areas which needs to be lined.

Material Properties			
Properties after firing to 815 °C		CURAS 90 S PF	Industry Standard
Maximum Service Temperature	°C	1.600	1.427
Bulk Density	kg/m ³	> 2.750	> 2.650
Erosion Loss	cc	< 3	< 4
Cold Crushing Strength	MPa	> 120	> 90
Permanent Linear Change Dried-to-Fired [%]	%	-0.1 to -0.4	0 to -0.4

Above values are for information purposes only. Datasheets are available upon request.

