TURKISH CERAMIC INDUSTRY & RAW MATERIALS in TURKEY

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LADIES AND GENTLEMAN

WELCOME
In the field of sanitary-ware, our country has become Europe’s largest producer and exporter.

The Turkish ceramic industry employs totally 246,000 people in the field of production, design, sales and marketing.
In 2015, the established capacity of ceramic tiles reached to 411 million m², production is 320 million m² and the export is 77 million m².

The established capacity of sanitary ware production is 23 million pcs, production is 20 million pcs. and export is 8 million pcs.
RAW MATERIAL DEMANDS
OF
TURKISH CERAMIC INDUSTRY
# CERAMIC TILES (Floor and wall tiles, granite tile)

<table>
<thead>
<tr>
<th>Ceramic Tiles Raw Materials</th>
<th>Amount (tons/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>2.048.000</td>
</tr>
<tr>
<td>Feldspars, aplite, pegmatite etc.</td>
<td>1.792.000</td>
</tr>
<tr>
<td>Kaolin</td>
<td>768.000</td>
</tr>
<tr>
<td>Quartz, quartz sand</td>
<td>512.000</td>
</tr>
</tbody>
</table>
## SANITARY WARE

<table>
<thead>
<tr>
<th>Sanitary Ware Raw Materials</th>
<th>Amounts (ton/year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clay</td>
<td>96.000</td>
</tr>
<tr>
<td>Kaolin</td>
<td>75.000</td>
</tr>
<tr>
<td>Feldspar</td>
<td>90.000</td>
</tr>
<tr>
<td>Quartz, quartz sand</td>
<td>39.000</td>
</tr>
</tbody>
</table>

*2015*
USAGE
OF
RAW MATERIALS
IN
TURKISH CERAMICS
CLAY

The clay reserves of Turkey, especially for ceramic and refractory productions are estimated to be nearly 200 million tons.

Nearly half of these reserves are not very efficient to use in ceramic industry for today.

But we believe, these inefficient clays will be used after continuous R&D studies, thus will be very necessarily used for the sector.
IMPORTANCE of CLAY-SAND BASIN

in

İSTANBUL-ŞİLE REGION
Approximately 90% of the 200 million tons of clay reserve is included in Şile-Istanbul region for ceramic industry.

Nearly half of these reserves are not very efficient to use in ceramic industry for today.

But we believe, these inefficient clays will be used after continuous R&D studies, thus will be very necessarily used for the sector.

No significant clay deposits have been found up to now except Şile-İstanbul Basin.
KAOLİN

Kaolin reserves of Turkey are estimated to be nearly 89 million tons, composed of %15-37 $\text{Al}_2\text{O}_3$ content.
QUARTZ, SİLİÇA SAND

*It is produced over 4 million tons/year from Şile region and is refined by the following processes of washing, enriching and grading.*

*Sand reserves of Turkey for the industries such as ceramic, casting, construction etc. are estimated to be nearly more than 100 million tons in İstanbul Şile Region.*
FELDSPAR

• *Feldspar reserves in Turkey are estimated to be 330 million tons (visible & potential). Important feldspar reserves are located in Aydın/Çine and Muğla/Milas the southwest of Turkey.*

• *Most of the feldspar is produced by the private sector and 75% of the production is exported. Feldspar exports started in 1990 and it reached approximately to 70 million tons in June 2016.*
High quality K-Feldspars are importing from India, Egypt and Spain due to insufficient reserves of Turkey.
• From the quarries, removal of the large amount of feldspar ore and its transportation to plants, stock areas and port, leads to environmental problems.

• The environmental rules are so strict in Turkey that as even the quarries are being stopped.
In local markets, 25 million tons of feldspar is consumed. Totally 95 million tons of feldspar excavated without overburden.
The mining of the elongated feldspar veins due to its geological formation require to open deeper (100-150 mt. depth) quarries, to remove huge overburden excavation forming mountains.
In order to produce the feldspar sustainably, the mining companies have to consider the facts about the production, enriching, logistics, and mining quarry rehabilitation by obeying the quality, environmental and safety rules.

For that reasons from now on, the importer companies should co-operate with the companies that are producing the feldspar by this sensitivity.
• **In addition, miners have to reforest the clearance land and deliver to the Ministry of Environment Forestry and Urbanization**
THANK YOU / GRAZIE

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