Application of waste foundry sand (WFS) in civil construction.

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Abstract
Construction civil is one of the sectors that generate more solid waste, as well as there are several studies looking for solutions to best manage and reuse such material. The waste foundry sand (WFS) is a waste generated in large quantity by foundry industries. The application of this waste in construction is a way to reduce the environmental impact and natural resources exploration. On this wise, this research on such topics is to propose the WFS application in landfill and in pavements.

Key words: Landfill, Ultrasound, Compacted Soil, granulometric stabilization.

Table 1 shows the compression strength results. For this test, the content of 60 % WFS showed greater resistance compared to soil.

<table>
<thead>
<tr>
<th>Recipe</th>
<th>Soil 20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>WFS</td>
<td>0,75</td>
<td>0,70</td>
<td>0,72</td>
<td>0,86</td>
</tr>
<tr>
<td>WFS</td>
<td>0,70</td>
<td>0,72</td>
<td>0,86</td>
<td>0,44</td>
</tr>
</tbody>
</table>

Conclusions
The research has shown the viability of the proposed use of WFS in landfills and paving up to the content of 60% WFS.

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References