

AzuRe154



Descrição: Azulejo do século XVII (1630-1640); Origem: Lisboa.

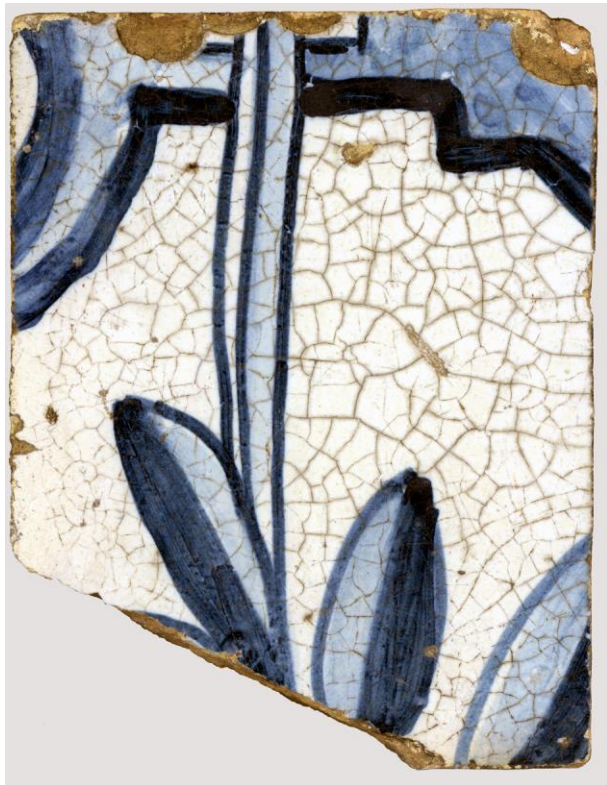
Amostras: Fragmentos em depósito no *Museu Nacional do Azulejo* em Lisboa.

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- **Caracterização Química/Mineralógica**
 - ✓ Análise por SEM/EDS

AzuRe154





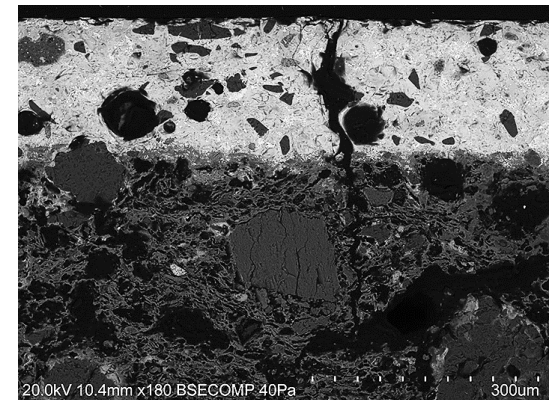
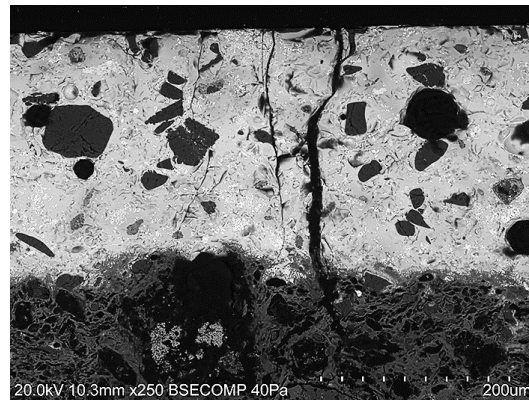
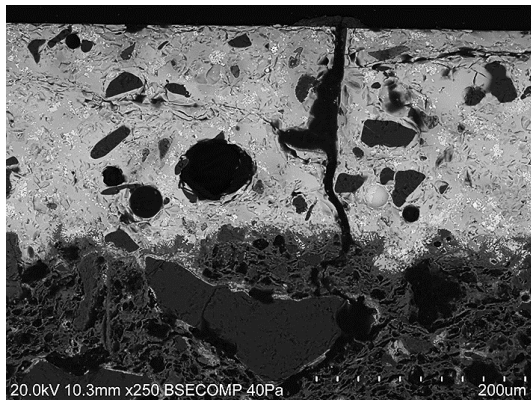
Azulejo com craquelé evidente e pequenas falhas de vidro nas arestas.



- Espessura do Azulejo = 18 mm



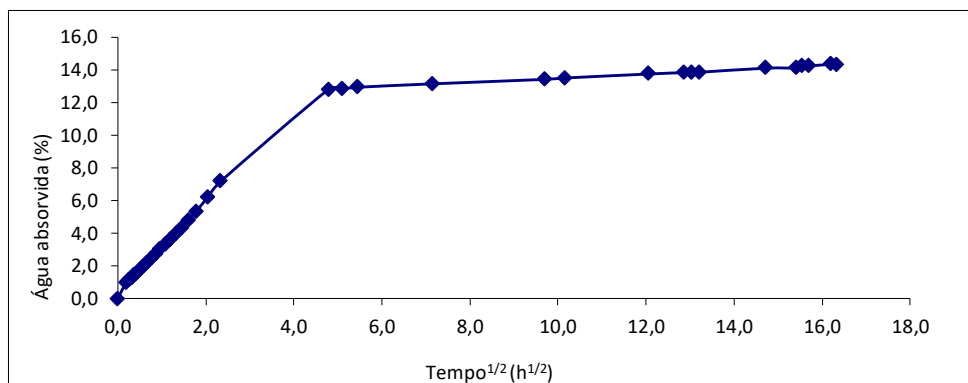
Chacota amarelada compacta com pequenos poros circulares e alongados; areias; inclusões; craquelé com propagação vertical na chacota.



- Observa-se craquelé.
- Espessura do Vidrado = 102-120 µm

Equipamento: Microscópio eletrónico de varrimento HITACHI 3700N acoplado a um espectrómetro de energia dispersiva de raios-X Bruker Xflash 5010.

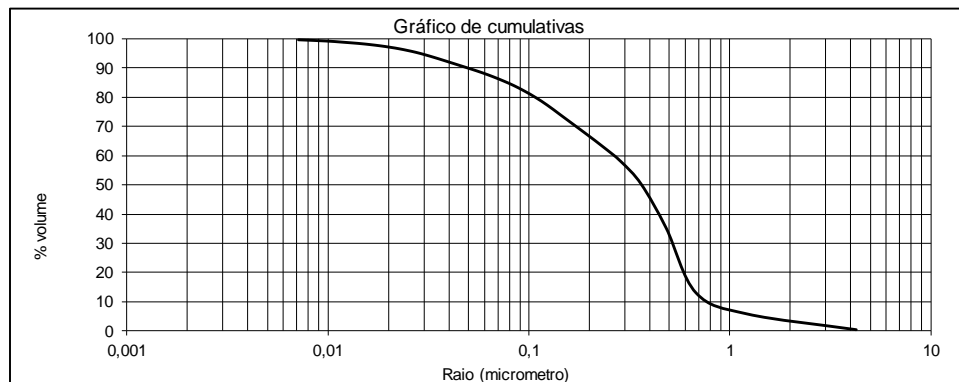
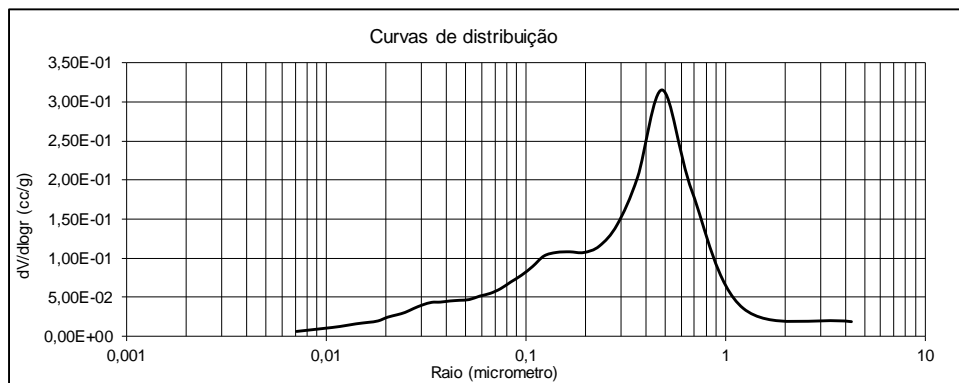
Curva de Absorção de Água (Chacota)



Massa volúmica real (kg/m³)	2805
Massa volúmica aparente (kg/m³)	1771
Porosidade aberta (vol %)	38,4
Coefficiente de capilaridade (kg/m²/h^{1/2})	0,7
Teor máximo de água (%)	22,5

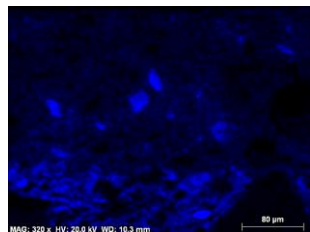
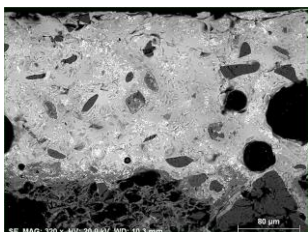
Procedimento: baseado na norma NP EN-13755.

Curvas de Porosimetria (Chacota)

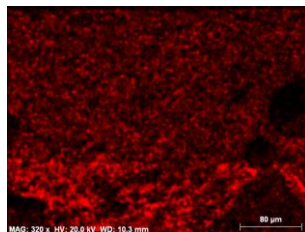


Procedimento: baseado na norma ASTM D4404-84.

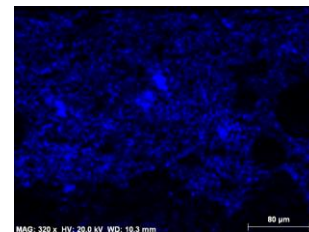
Equipamento: Porosímetro Quantachrome Autoscan



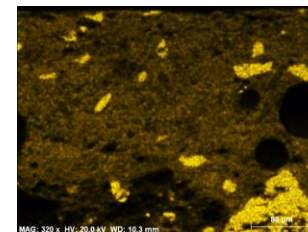
Na



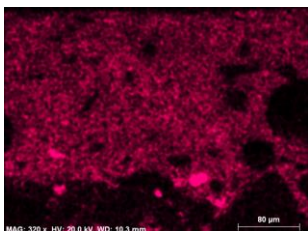
Mg



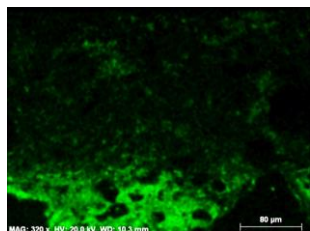
Al



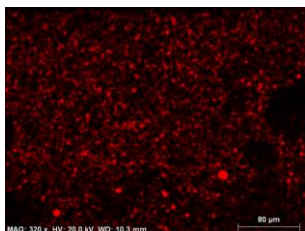
Si



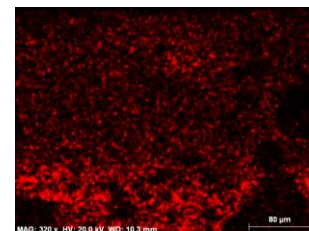
K



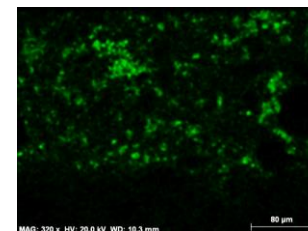
Ca



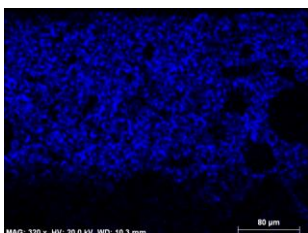
Ti



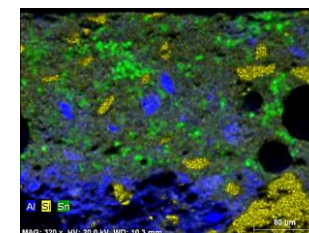
Fe



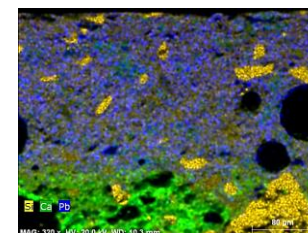
Sn



Pb



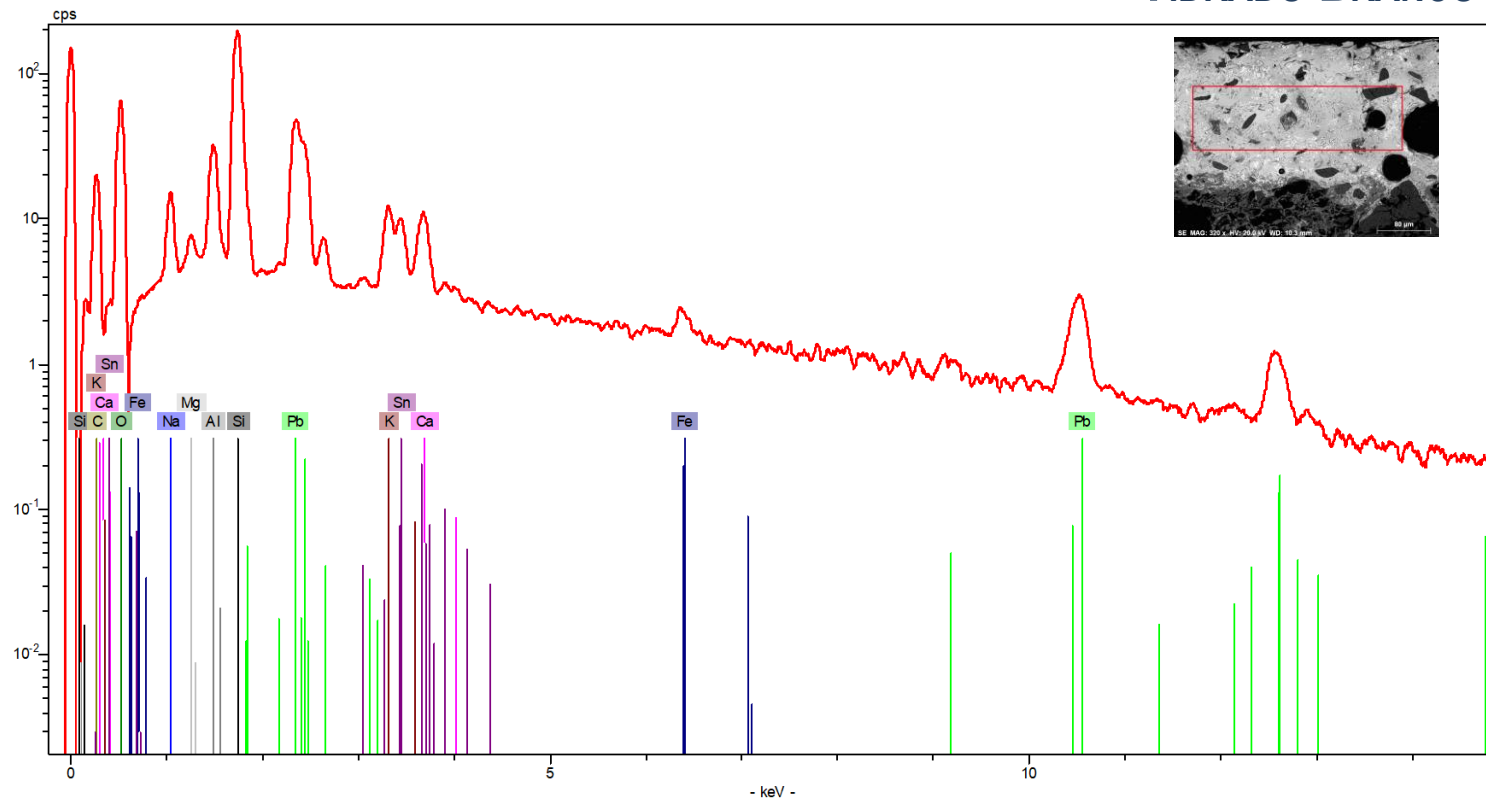
Combinação
Al_Si_Sn



Combinação
Si_Ca_Pb

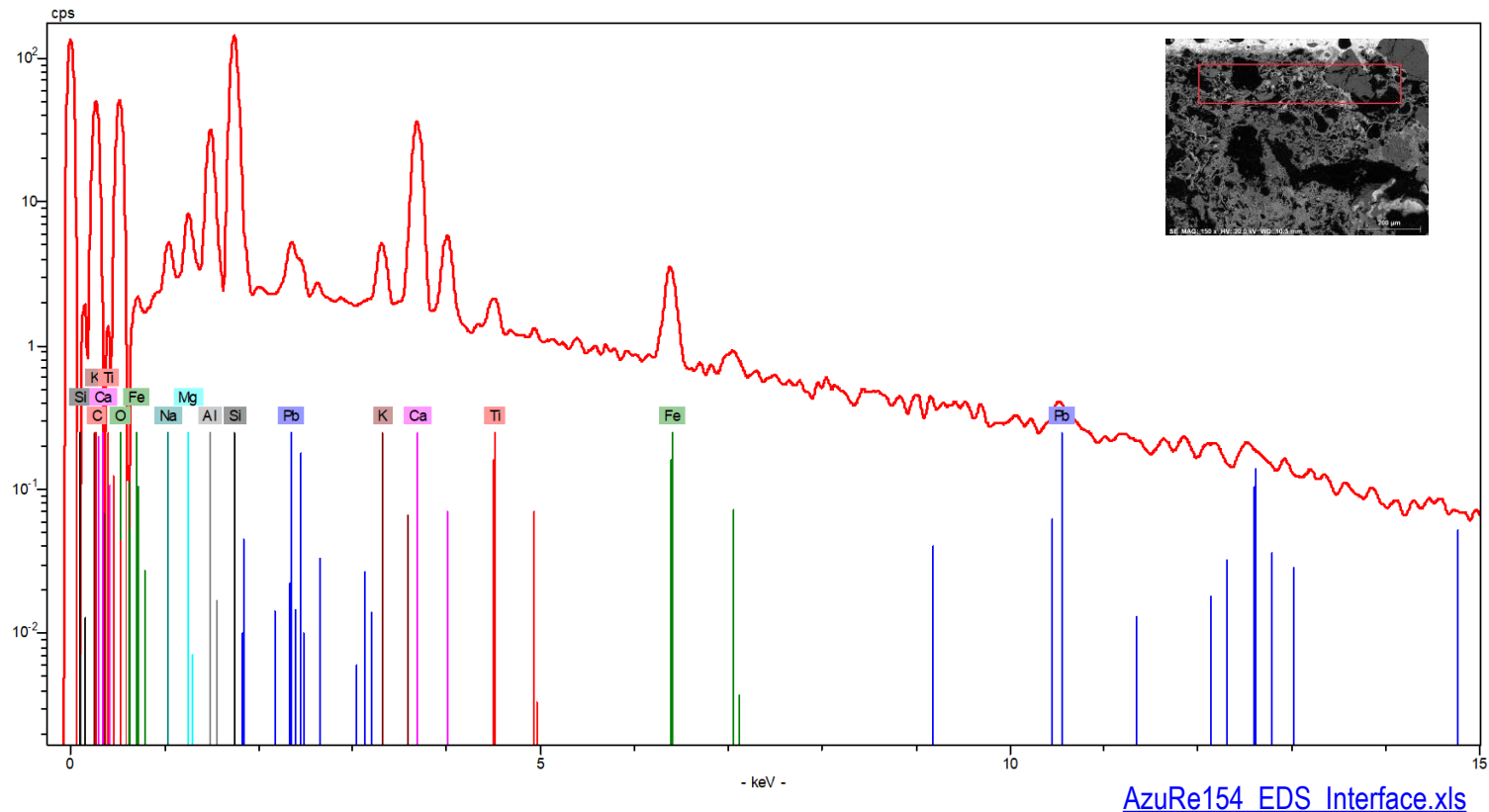
Equipamento: Microscópio eletrónico de varrimento HITACHI 3700N acoplado a um espectrómetro de energia dispersiva de raios-X Bruker Xflash 5010.

VIDRADO BRANCO

[AzuRe154 EDS Vidrado.xls](#)

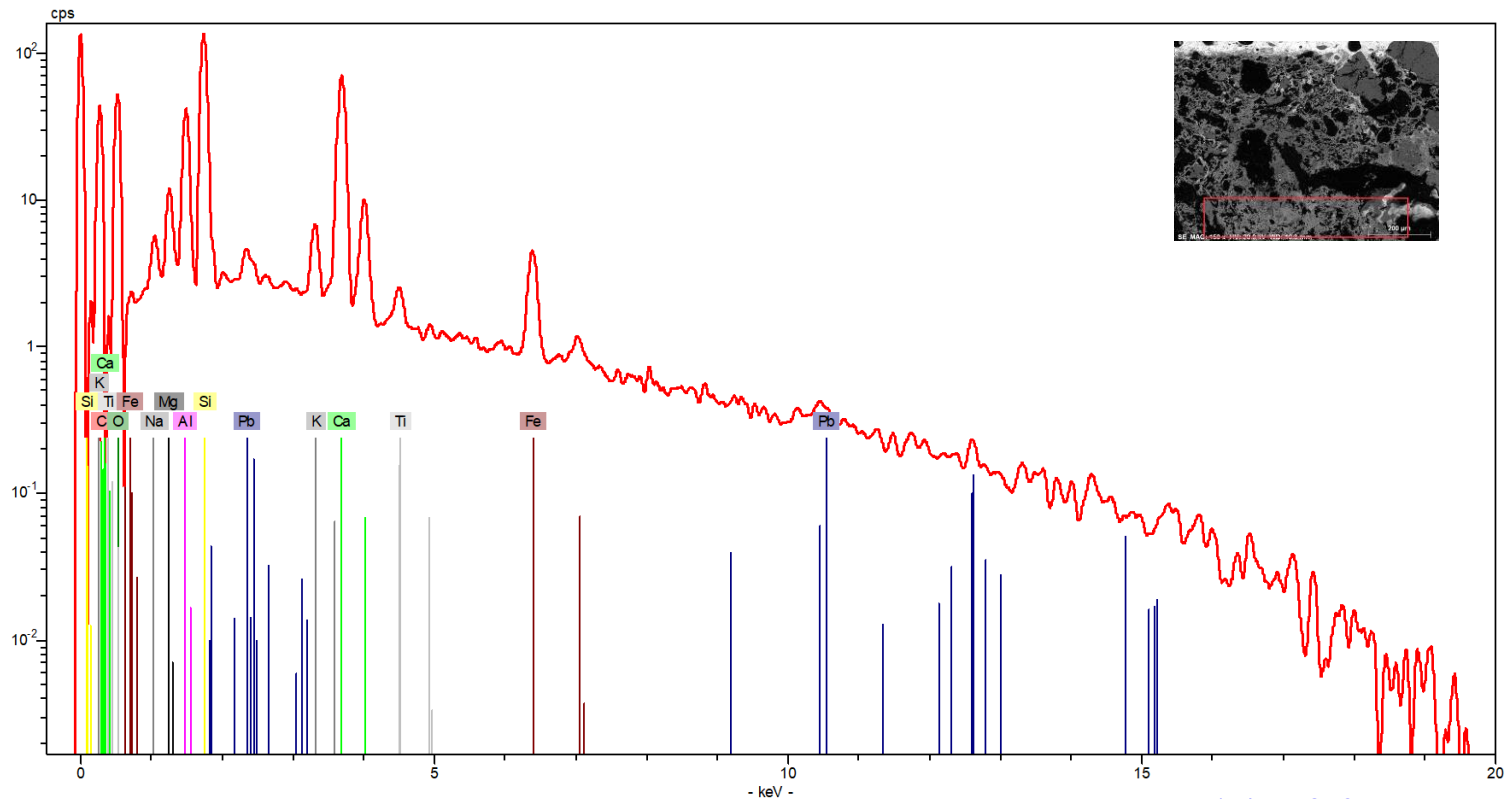
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INTERFACE



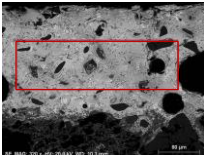
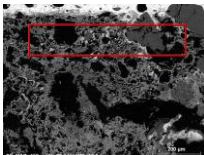
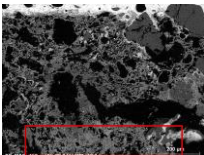
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CHACOTA

[Azure154 EDS Chacota.xls](#)

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Composição química (% m/m)*

Área Analisada	Na	Mg	Al	Si	K	Ca	Ti	Fe	Sn	Pb
 vidrado branco	3,39	0,53	5,24	31,20	3,51	2,33	-	0,85	6,87	46,09
 chacota (próximo interface)	1,11	1,75	9,86	43,06	2,00	28,26	0,96	5,92	--	7,08
 chacota	1,02	2,48	10,44	31,55	2,16	41,03	0,98	6,09	--	4,25

* - Os valores apresentados na tabela correspondem às percentagens mássicas dos elementos detetados na amostra, não considerando o **teor de oxigénio** e normalizados a 100% ([ver aviso](#)).

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