Ashes of the Past

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **23**
- SRM **15.2**
- Style **Northern English Brown Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **23.9 liter(s)**
- Total mash volume **28.7 liter(s)**

Steps

- Temp **66 C**, Time **80 min**
- Temp **68 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **23.9 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **80 min** at **66C**
- Keep mash **15 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4 kg *(83.5%)*	81 %	6
Grain	Brown Malt (British Chocolate)	0.25 kg *(5.2%)*	70 %	128
Grain	Caramel/Crystal Malt - 120L	0.36 kg *(7.5%)*	72 %	236
Grain	Briess - Chocolate Malt	0.18 kg *(3.8%)*	60 %	690

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Progress	37 g	60 min	5.5 %
Boil	Golding	18 g	15 min	5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	150 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Water Agent	Gypsum	1.5 g	Mash	60 min
Water Agent	Calcium Chloride	0.3 g	Mash	60 min
Water Agent	Epsom Salt	1.3 g	Mash	60 min
Water Agent	Kosher Salt	1.5 g	Mash	60 min
Water Agent	Gypsum	0.9 g	Boil	90 min
Water Agent	Calcium Chloride	0.2 g	Boil	90 min
Water Agent	Epsom Salt	0.8 g	Boil	90 min
Water Agent	Kosher Salt	0.9 g	Boil	90 min
Water Agent	Phosphoric Acid	2.8 g	Mash	60 min
Water Agent	Phosphoric Acid	3.2 g	Boil	90 min

Notes

- Woda kranowa.
  Ostateczny profil:
  Ca 80, Mg 10, Na 28, SO4 75, Cl 50, HCO 92, pH 5,4
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