

Smoked ESB

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **30**
- SRM **18.1**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **8 %**
- Size with trub loss **14 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **16.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **66.7 C**, Time **60 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **60 min** at **66.7C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **16.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Słód Halcyon Pale Ale (Fawcett)	2.25 kg (60.8%)	83 %	7
Grain	Słód Wędzony (Steinbach)	0.5 kg (13.5%)	80 %	6
Grain	Simpsons - Crystal Rye	0.3 kg (8.1%)	73 %	177
Grain	Weyermann - Carawheat	0.25 kg (6.8%)	77 %	97
Grain	Special B Malt	0.15 kg (4.1%)	65.2 %	315
Grain	Briess - Chocolate Malt	0.05 kg (1.4%)	60 %	690
Sugar	Invert Sugar	0.2 kg (5.4%)	100 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Fuggles	20 g	60 min	4.5 %
Boil	Fuggles	30 g	30 min	4.5 %
Boil	Fuggles	20 g	0 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
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FM11 Wichrowe Wzgórza	Ale	Liquid	480 ml	Fermentum Mobile
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