

Smoked FES #15

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **43**
- SRM **42.5**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **25 %/h**
- Boil size **13.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.5 liter(s)**
- Total mash volume **16.1 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **12.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **4.9 liter(s)** of **76C** water or to achieve **13.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wędzony bukiem Viking Malt	2 kg (55.8%)	82 %	10
Grain	Viking Pale Ale malt	1 kg (27.9%)	80 %	5
Grain	Czekoladowy	0.3 kg (8.4%)	60 %	788
Grain	Jęczmień palony	0.2 kg (5.6%)	55 %	985
Grain	Płatki owsiane	0.085 kg (2.4%)	60 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	9.2 %
Aroma (end of boil)	lunga	10 g	15 min	9.2 %

Yeasts

Name	Type	Form	Amount	Laboratory
us05	Ale	Slant	200 ml	---