

## 13. FSS (TB)

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- Gravity **15.8 BLG**
- ABV ---
- IBU **45**
- SRM **40**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.5 liter(s)**
- Total mash volume **28.6 liter(s)**

### Steps

- Temp **68 C**, Time **85 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **21.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **85 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale	4.1 kg (57.3%)	80 %	4
Grain	Smoked Malt	1.25 kg (17.5%)	80 %	18
Grain	Brown Malt (British Chocolate)	0.4 kg (5.6%)	70 %	128
Grain	Chocolate Malt (UK)	0.4 kg (5.6%)	73 %	887
Grain	Jęczmień palony	0.5 kg (7%)	55 %	985
Grain	Barley, Flaked	0.5 kg (7%)	70 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	50 g	60 min	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-05	Ale	Slant	150 ml	Safale