

FESST

- Gravity **17.9 BLG**
- ABV ---
- IBU **41**
- SRM **36.1**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **26.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **25.4 liter(s)**

Steps

- Temp **64 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **19 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **71C**
- Keep mash **1 min** at **78C**
- Sparge using **14.3 liter(s)** of **76C** water or to achieve **26.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Rye Malt	2 kg (31.5%)	85 %	7
Grain	Weyermann - Pale Ale Malt	2 kg (31.5%)	85 %	7
Grain	Weyermann - Carared	0.25 kg (3.9%)	75 %	45
Grain	Simpsons - Peated Malt	1 kg (15.7%)	81 %	5
Grain	Strzegom Karmel 600	0.25 kg (3.9%)	68 %	601
Grain	Weyermann - Carafa III	0.25 kg (3.9%)	70 %	1024
Grain	Oats, Flaked	0.6 kg (9.4%)	80 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	Marynka	25 g	30 min	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale