

Fester

- Gravity **15.8 BLG**
- ABV ---
- IBU **52**
- SRM **38.6**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **25.2 liter(s)**

Steps

- Temp **65 C**, Time **45 min**
- Temp **72 C**, Time **25 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **45 min** at **65C**
- Keep mash **25 min** at **72C**
- Sparge using **14.9 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4 kg (63.5%)	80 %	4
Grain	Strzegom Monachijski typ II	1 kg (15.9%)	79 %	22
Grain	Strzegom Karmel 150	0.5 kg (7.9%)	75 %	150
Grain	Oats, Flaked	0.5 kg (7.9%)	80 %	2
Grain	Carafa III Special	0.3 kg (4.8%)	70 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	40 g	60 min	11 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale