

FES ala dori

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **45**
- SRM **33.9**
- 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 **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **29.7 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **23.1 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (84.5%)	80 %	5
Adjunct	Barley, Flaked	0.5 kg (7%)	70 %	4
Grain	Strzegom Czekoladowy ciemny	0.2 kg (2.8%)	68 %	1200
Grain	Carafa II	0.2 kg (2.8%)	70 %	1100
Grain	Jęczmień palony	0.2 kg (2.8%)	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Fuggles	25 g	20 min	4.5 %
Boil	Fuggles	25 g	5 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Dry	11 g	Danstar