

## FES 2.0

---

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **29**
- SRM **34.6**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **25 %/h**
- Boil size **15.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.4 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **12.4 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **6.3 liter(s)** of **76C** water or to achieve **15.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszoniczny	0.5 kg (14.1%)	85 %	4
Grain	Płatki owsiane	0.535 kg (15%)	60 %	3
Grain	Strzegom Pilzneński	2 kg (56.3%)	80 %	4
Grain	Fawcett - Pale Chocolate	0.25 kg (7%)	71 %	500
Grain	Fawcett - Czekoladowy	0.1 kg (2.8%)	73 %	1001
Grain	Weyermann - Carafa II Special	0.1 kg (2.8%)	70 %	1150
Grain	Special B Malt	0.07 kg (2%)	65.2 %	315

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	45 min	11 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	100 ml	Fermentis