

FESik

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **67**
- SRM **41.1**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **32 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **40.5 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37.3 liter(s)**
- Total mash volume **49.7 liter(s)**

Steps

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

Mash step by step

- Heat up **37.3 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **40.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6.4 kg (51.5%)	80 %	5
Grain	Pilzneński	1.6 kg (12.9%)	81 %	4
Grain	Strzegom Karmel 150	0.8 kg (6.4%)	75 %	150
Grain	Caraaroma	0.32 kg (2.6%)	78 %	400
Grain	Abbey Castle	0.48 kg (3.9%)	80 %	45
Grain	Jęczmień palony	0.41 kg (3.3%)	55 %	985
Grain	Carafa II Special	0.41 kg (3.3%)	70 %	812
Grain	Strzegom pszenica prażona	0.41 kg (3.3%)	70 %	1000
Grain	Płatki owsiane	1.6 kg (12.9%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	80 g	60 min	13.5 %
Boil	Fuggles	32 g	30 min	4.5 %