

# FES#1

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU ---
- SRM **44.3**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **15 %**
- Size with trub loss **11.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **14.4 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **19.8 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **15.4 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **3.4 liter(s)** of **76C** water or to achieve **14.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	3.5 kg (79.5%)	82 %	4
Grain	carabody	0.2 kg (4.5%)	75 %	8
Grain	Castle Cafe	0.3 kg (6.8%)	75.5 %	480
Grain	Jęczmień palony	0.4 kg (9.1%)	55 %	985