

## Foreign Extra Stout

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **50**
- SRM **48.8**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **13 %/h**
- Boil size **22.7 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **24.5 liter(s)**
- Total mash volume **31.5 liter(s)**

### Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **24.5 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **5.2 liter(s)** of **76C** water or to achieve **22.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.6 kg (65.7%)	80 %	5
Grain	Simpsons - Crystal Medium	0.6 kg (8.6%)	74 %	108
Grain	Castle Cafe	0.5 kg (7.1%)	75.5 %	480
Grain	Fawcett - Pale Chocolate	0.5 kg (7.1%)	71 %	600
Grain	Płatki owsiane	0.4 kg (5.7%)	60 %	3
Grain	Jęczmień palony	0.4 kg (5.7%)	55 %	1000

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	35 g	60 min	13.9 %
Aroma (end of boil)	Premiant	30 g	0 min	2.53 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - 1728 Scottish Ale	Ale	Liquid	100 ml	Wyeast Labs

Starter