

## #12 Bread Foreign Extra Stout

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **41**
- SRM **23.9**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **32.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28.5 liter(s)**

### Steps

- Temp **67 C**, Time **80 min**
- Temp **71 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **21 liter(s)** of strike water to **75.4C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **71C**
- Keep mash **10 min** at **78C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **32.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Płatki owsiane	0.5 kg (5.8%)	77 %	3
Grain	Strzegom Monachijski typ I	6 kg (69.8%)	77 %	16
Adjunct	suchy chleb	1.1 kg (12.8%)	75 %	4
Grain	Karmelowy Jasny 30EBC	0.6 kg (7%)	77 %	30
Dodane na wygrzew				
Grain	Jęczmień palony	0.4 kg (4.7%)	55 %	985
Dodane na wygrzew				

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	30 g	60 min	13.5 %
Boil	Sybilla	90 g	15 min	3.5 %
Dry Hop	Citra	15 g	3 day(s)	12 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Slant	60 ml	---
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