

## Foreign Extra Stout 3.0

- Gravity **17.7 BLG**
- ABV **7.6 %**
- IBU **51**
- SRM **44.8**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **15 %/h**
- Boil size **16.2 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

### Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **12 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **16.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (75%)	79 %	6
Grain	Strzegom Karmel 300	0.15 kg (3.8%)	70 %	300
Grain	Castlemalting Cafe	0.2 kg (5%)	75.5 %	500
Grain	Fawcett Chocolate	0.15 kg (3.8%)	72 %	1200
Grain	Carafa Special III	0.1 kg (2.5%)	70 %	1034
Grain	Jęczmień palony	0.15 kg (3.8%)	55 %	985
Grain	Bestmalz Pszeniczny Jasny	0.25 kg (6.3%)	82 %	6

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Aurora	30 g	60 min	8.8 %
Aroma (end of boil)	Aurora	20 g	10 min	8.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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FM13 Irlandzkie Ciemności	Ale	Liquid	200 ml	Fermentum Mobile
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### Extras

Type	Name	Amount	Use for	Time
Fining	Whirfloc	1.25 g	Boil	10 min