

# Foreign Extra Stout

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **31**
- SRM **30.9**
- Style **Foreign Extra Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

## Steps

- Temp **70 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **20.7 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **40 min** at **70C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **11.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (58%)	80 %	5
Grain	Briess - Wheat Malt, White	1.8 kg (26.1%)	85 %	5
Grain	Caramel/Crystal Malt - 20L	0.5 kg (7.2%)	75 %	39
Grain	Chocolate Malt (UK)	0.4 kg (5.8%)	73 %	887
Grain	Black Barley (Roast Barley)	0.2 kg (2.9%)	55 %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Apollo	20 g	60 min	17 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP004 - Irish Ale Yeast	Ale	Liquid	1000 ml	White Labs

## Extras

Type	Name	Amount	Use for	Time
Spice	Ziarno cacao	300 g	Secondary	9 day(s)
Spice	Zestaw przypraw świątecznych.	90 g	Secondary	9 day(s)

## Notes

- Piwo po burzliwej zostało podzielone na dwa fermentory. Do pierwszego zestaw przypraw świątecznych macerowanych w whisky i 100 g ziarna cacao. (8L) warka  
Do drugiego zostało tylko dodane ziarno cacao 200 g( uprażone w piekarniku na 15 min 180 st.) 12L warka  
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