

## tropical stout

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **48**
- SRM **46.6**
- Style **Foreign Extra Stout**

### Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **7.8 liter(s)**
- Total mash volume **10.9 liter(s)**

### Steps

- Temp **69 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **7.8 liter(s)** of strike water to **78.7C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **5 min** at **78C**
- Sparge using **7.4 liter(s)** of **76C** water or to achieve **12.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.5 kg (74.6%)	80 %	5
Sugar	melasa	0.25 kg (7.5%)	68 %	158
Grain	Fawcett - Dark Crystal	0.1 kg (3%)	71 %	210
Grain	Special B Malt	0.2 kg (6%)	65.2 %	315
Grain	Jęczmień palony Weyermann	0.2 kg (6%)	55 %	1400
Grain	Carafa II special	0.1 kg (3%)	70 %	1100

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - German Ale	Ale	Slant	50 ml	Wyeast Labs

### Extras

Type	Name	Amount	Use for	Time
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Other	chlodnica ;)	1 g	Boil	15 min
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