

## polish brown ale

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- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **39**
- SRM **20.1**
- Style **Brown IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **7 %**
- Size with trub loss **25.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **29 liter(s)**

### Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **3 min**

### Mash step by step

- Heat up **21.8 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **3 min** at **76C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **30.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	6 kg (82.8%)	80 %	5
Grain	Weyermann - Caraamber	0.3 kg (4.1%)	75 %	65
Grain	Weyermann - Carafa II	0.2 kg (2.8%)	70 %	837
Grain	Cara Gold Castlemalting	0.5 kg (6.9%)	78 %	120
Grain	Caraaroma	0.25 kg (3.4%)	78 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	45 g	70 min	6.5 %
Boil	Lubelski	15 g	35 min	4.2 %
Boil	Marynka	20 g	15 min	6.5 %
Boil	Lubelski	15 g	10 min	4.2 %
Boil	Marynka	15 g	5 min	6.5 %
Aroma (end of boil)	Lubelski	15 g	0 min	4.2 %
Aroma (end of boil)	Marynka	10 g	0 min	6.5 %

Dry Hop	Lubelski	45 g	10 day(s)	4.2 %
Dry Hop	Lubelski	30 g	5 day(s)	4.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us-05	Ale	Slant	100 ml	fermetins

### Extras

Type	Name	Amount	Use for	Time
Fining	Mech Irlandzki	5 g	Boil	15 min