

## Bitter #1 org

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- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **28**
- SRM **10.9**
- Style **Special/Best/Premium Bitter**

### 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 **14.1 liter(s)**
- Total mash volume **18.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **78C**
- Sparge using **15.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Thomas Fawcett Halcyon	3 kg (63.8%)	80.5 %	5
Grain	Biscuit Malt	1 kg (21.3%)	79 %	50
Grain	Thomas Fawcett Amber	0.5 kg (10.6%)	75 %	120
Grain	Pszeniczny	0.2 kg (4.3%)	85 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	50 g	30 min	5.1 %
Boil	Fuggles	10 g	15 min	4.5 %
Boil	Fuggles	10 g	10 min	4.5 %
Boil	Fuggles	10 g	5 min	4.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM10 O czym szumią wierzby	Ale	Liquid	100 ml	Fermentum Mobile

### Notes

- <https://twojbrowar.pl/pl/surowce-piwowarskie/slody/slod-pale-ale-halcyon-1kg-thomas-fawcett>

<https://twojbrowar.pl/pl/surowce-piwowarskie/slody/slod-amber-1kg-thomas-fawcett>

<https://twojbrowar.pl/pl/surowce-piwowarskie/slody/slod-cookie-1kg-viking-malt>

Pszenica - własna

Drozdze

<https://twojbrowar.pl/pl/surowce-piwowarskie/drozdze-piwowarskie/fermentum-mobile-fm10-o-czym-szumia-wierzby>

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