

Bitter_Rafał

- Gravity **9.3 BLG**
- ABV **3.6 %**
- IBU **24**
- SRM **13.1**
- Style **Standard/Ordinary Bitter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.7 liter(s)**
- Total mash volume **19.6 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.1 kg (83.7%)	80 %	6
Grain	Caramel/Crystal Malt - 120L	0.5 kg (10.2%)	72 %	180
Grain	Special B Malt	0.3 kg (6.1%)	65.2 %	350

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	25 g	60 min	8 %
Aroma (end of boil)	East Kent Goldings	25 g	10 min	5.7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis