

## Karob bitter

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **24**
- SRM **9.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **19 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.4 liter(s)**
- Total mash volume **13.8 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Maris Otter Crisp	3 kg (69.6%)	83 %	6
Grain	Abbey Castle	0.3 kg (7%)	80 %	45
Grain	Cara Ruby Castle	0.1 kg (2.3%)	72 %	49
Grain	Jęczmień palony	0.06 kg (1.4%)	55 %	985
Dry Extract	WES ekstrakt słodowy jasny	0.35 kg (8.1%)	80 %	7
Adjunct	Karob	0.5 kg (11.6%)	80 %	---

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Warrior	10 g	60 min	15.5 %
Boil	East Kent Goldings	20 g	10 min	5.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis