

bitter

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **47**
- SRM **7.4**
- 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 **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.2 kg (91.3%)	80 %	5
Grain	Strzegom Karmel 150	0.3 kg (6.5%)	75 %	150
Grain	Carahell	0.1 kg (2.2%)	77 %	26

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Warrior	25 g	60 min	13.4 %
Aroma (end of boil)	Cascade	30 g	5 min	7.6 %
Boil	Warrior	5 g	15 min	13.4 %
Whirlpool	Simcoe	30 g	0 min	12.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
04	Ale	Slant	100 ml	---