

# Special Bitter

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **27**
- SRM **8.5**
- 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 **3.5 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **20.7 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **16.1 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **0 min** at **76C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2.2 kg (47.8%)	80 %	5
Grain	Viking Golden ale	2.1 kg (45.7%)	80 %	14
Grain	Strzegom Karmel 150	0.3 kg (6.5%)	75 %	150

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Challenger	30 g	60 min	7 %
Boil	Fuggles	10 g	15 min	4.5 %
Aroma (end of boil)	Fuggles	20 g	2 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-04	Ale	Slant	200 ml	---