

# Special Bitter

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **28**
- SRM **5.8**
- Style **Special/Best/Premium Bitter**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **10 %**
- Size with trub loss **11 liter(s)**
- Boil time **65 min**
- Evaporation rate **13 %/h**
- Boil size **13.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **7.5 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **17 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **77 C**, Time **1 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **77C**
- Sparge using **0.1 liter(s)** of **76C** water or to achieve **13.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.5 kg (75%)	80 %	6
Grain	Viking Monach II	0.3 kg (15%)	79 %	20
Grain	Viking Pale Cookie (bursztynowy)	0.1 kg (5%)	72 %	25
Grain	Viking Caramel Sweet	0.1 kg (5%)	75 %	62

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga Polish Hops	4 g	60 min	10 %
Boil	Simcoe	5 g	30 min	11.7 %
Boil	Simcoe	7 g	10 min	11.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
WLP004 - Irish Ale Yeast	Ale	Liquid	1000 ml	White Labs