Bitter

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **38**
- SRM **7.9**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **18.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale - Crisp	3.1 kg *(50.8%)*	82 %	4.5
Grain	Pilzneńki - Viking Malt	2 kg *(32.8%)*	81 %	4
Grain	Crystal Extra Light - Crisp	0.6 kg *(9.8%)*	72 %	120
Grain	Dextrin Malt - Crisp	0.4 kg *(6.6%)*	82 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Chinook	20 g	50 min	13 %
Boil	Cascade	150 g	5 min	6 %
Dry Hop	Fuggles	100 g	3 day(s)	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand LalBrew London ESB	Ale	Dry	11 g	Ale Yeast