

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 | Pilzneński - 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 |