

pale ale 12° blg

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **24**
- SRM **4.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

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 **17.1 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------|----------------|-------|-----|
| Grain | Pale Ale | 4.6 kg (93.9%) | 80 % | 4 |
| Grain | carahell | 0.3 kg (6.1%) | --- % | 25 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------------|--------|--------|------------|
| Boil | Kent Goldings | 30 g | 60 min | 5.5 % |
| Aroma (end of boil) | Fuggles | 20 g | 15 min | 4.5 % |
| Aroma (end of boil) | Fuggles | 10 g | 5 min | 4.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |