

## pale ale 12° blg

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- 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     |