

Maris Otter2

- Gravity **15.4 BLG**
- ABV ---
- IBU **39**
- SRM **9.2**
- Style **California Common Beer**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **58 C**, Time **15 min**
- Temp **62 C**, Time **15 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **15 min** at **58C**
- Keep mash **15 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | Simpsons - Maris Otter | 5 kg (74.4%) | 81 % | 6 |
| Grain | BESTMALZ - Best Melanoidin | 1 kg (14.9%) | 75 % | 71 |
| Grain | Weyermann - Smoked Malt | 0.5 kg (7.4%) | 81 % | 6 |
| Sugar | Candi Sugar, Clear | 0.22 kg (3.3%) | 78.3 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil | Columbus/Tomahawk/Zeus | 30 g | 5 min | 15.7 % |
| Boil | Challenger | 35 g | 30 min | 5.8 % |
| Boil | Mandarina Bavaria | 25 g | 55 min | 7.6 % |
| Dry Hop | Mandarina Bavaria | 25 g | 7 day(s) | 7.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------------------|-------|-----|--------|-------------|
| Wyeast - California Lager | Lager | Dry | 11.5 g | Wyeast Labs |
|---------------------------|-------|-----|--------|-------------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|-------------------|--------|---------|--------|
| Flavor | Sweet Orange Peel | 15 g | Boil | 10 min |