

Apa

- Gravity **9.5 BLG**
- ABV **3.7 %**
- IBU **43**
- SRM **2.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **33.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **74 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **74C**
- Sparge using **23.1 liter(s)** of **76C** water or to achieve **33.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------|-------------|-------|-----|
| Grain | Lager | 5 kg (100%) | 75 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 7 % |
| Boil | Citra | 30 g | 30 min | 13 % |
| Aroma (end of boil) | Citra | 30 g | 0 min | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|-------|--------|------------|
| Lutra OYL-071 | Ale | Slant | 100 ml | Fm |