

Lager OPT 4

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **3.6**
- Style **Standard American Lager**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

Steps

- Temp **54 C**, Time **20 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**

Mash step by step

- Heat up **19.3 liter(s)** of strike water to **58.8C**
- Add grains
- Keep mash **20 min** at **54C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Sparge using **15.2 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------------|---------------|-------|-----|
| Grain | Pilzneński Jasny Optima | 5 kg (90.9%) | 81 % | 4 |
| Grain | Bestmalz Carmel Pils | 0.5 kg (9.1%) | 75 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------|--------|--------|------------|
| Boil | Brewers Gold | 30 g | 60 min | 4.5 % |
| Aroma (end of boil) | Hersbrucker | 25 g | 10 min | 4.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 100 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------|--------|---------|--------|
| Fining | Whirflfloc | 1 g | Boil | 10 min |

Notes

- Zmiana wody

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Dec 3, 2018, 7:57 AM