

## Lager 2 Opt

---

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **19**
- SRM **4**
- Style **Standard American Lager**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

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

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **59.7C**
- Add grains
- Keep mash **20 min** at **54C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **15.5 liter(s)** of **76C** water or to achieve **26.5 liter(s)** of wort

### Fermentables

| Type  | Name                    | Amount        | Yield | EBC |
|-------|-------------------------|---------------|-------|-----|
| Grain | Pilzneński Jasny Optima | 5 kg (90.9%)  | 81 %  | 4   |
| Grain | Wiedeński Optima        | 0.5 kg (9.1%) | 81 %  | 8   |

### Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Brewers Gold           | 25 g   | 60 min | 4.5 %      |
| Aroma (end of boil) | Hallertau Spalt Select | 50 g   | 15 min | 2.9 %      |

### 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 |