

Lager OPT 5

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **22**
- SRM **3.4**
- Style **Standard American Lager**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 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 **17.9 liter(s)** of **76C** water or to achieve **31.7 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 | Hallertau Blanc | 20 g | 50 min | 9.8 % |
| Aroma (end of boil) | Tradition | 25 g | 10 min | 5.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|-------|------|--------|------------------------------------|
| Saflager S-23 | Lager | Dry | 11 g | Fermentis Division of S.I.Lesaffre |

Extras

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