

lager

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **40**
- SRM **8.9**
- Style **Vienna 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 **35.2 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.7 liter(s)**
- Total mash volume **27.6 liter(s)**

Steps

- Temp **50 C**, Time **30 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.7 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **30 min** at **50C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **21.4 liter(s)** of **76C** water or to achieve **35.2 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2 kg (29%) | 80 % | 5 |
| Grain | Viking Pilsner malt | 2 kg (29%) | 82 % | 4 |
| Grain | Red ale viking malt | 1.5 kg (21.7%) | 75 % | 70 |
| Grain | Pszeniczny | 1 kg (14.5%) | 85 % | 4 |
| Grain | Rice, Flaked | 0.4 kg (5.8%) | 70 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil | Magnum | 25 g | 60 min | 12 % |
| Boil | Puławski | 25 g | 30 min | 6.9 % |
| Boil | Marynka | 25 g | 15 min | 8.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|-------|------|--------|------------|
| s-23 | Lager | Dry | 11 g | --- |