

Red Lager

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **20**
- SRM **9.1**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **55 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **40 C**, Time **10 min**
- Temp **54 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **12.8 liter(s)** of strike water to **42.5C**
- Add grains
- Keep mash **10 min** at **40C**
- Keep mash **15 min** at **54C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **5 min** at **76C**
- Sparge using **3.1 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|---------------|-------|-----|
| Grain | Strzegom Wiedeński | 2 kg (62.5%) | 79 % | 10 |
| Grain | Monachijski | 1 kg (31.3%) | 80 % | 16 |
| Grain | Caramunich® typ I | 0.1 kg (3.1%) | 73 % | 80 |
| Grain | Carahell | 0.1 kg (3.1%) | 77 % | 26 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------------------|--------|--------|------------|
| Boil | Hallertau Tradition | 15 g | 60 min | 4.3 % |
| Aroma (end of boil) | Lublin (Lubelski) | 15 g | 10 min | 4.7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------|-------|-------|--------|------------|
| Saflager W 34/70 | Lager | Slant | 150 ml | Fermentis |