

Red Rye Lager

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **16**
- SRM **13.7**

Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.8 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **14.9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **1 min** at **78C**
- Sparge using **20.5 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|----------------|-------|------|
| Grain | Pilzneński IREKS | 4 kg (80.8%) | 80 % | 3 |
| Grain | Monachijski IREKS | 0.3 kg (6.1%) | 80 % | 20 |
| Grain | Żytni Weyermann | 0.5 kg (10.1%) | 75 % | 5 |
| Grain | Carafa III special | 0.15 kg (3%) | 70 % | 1300 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil | Tradition | 40 g | 60 min | 2.8 % |
| Boil | Tradition | 30 g | 15 min | 2.8 % |
| Boil | Tradition | 30 g | 5 min | 2.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------|-------|-------|--------|------------|
| W34/70 | Lager | Slant | 100 ml | --- |