

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