

lager

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **20**
- SRM **5.2**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

Steps

- Temp **65 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **12 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **60 min** at **65C**
- Keep mash **10 min** at **78C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (50%)	81 %	4
Grain	Monachijski	2 kg (50%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	25 g	20 min	4 %
Boil	Lublin (Lubelski)	25 g	15 min	4 %
Boil	amarillo	10 g	15 min	8.5 %
Boil	Cascade	5 g	15 min	6 %

Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M76 Bavarian Lager	Lager	Dry	10 g	Mangrove Jack's