

Lager

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **43**
- SRM **13.9**
- Style **Dark American Lager**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **3 %**
- Size with trub loss **25.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **2 %/h**
- Boil size **26.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **62 C**, Time **10 min**
- Temp **68 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **10 min** at **62C**
- Keep mash **30 min** at **68C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	pils/ale Byd	5 kg (66.7%)	80 %	5
Grain	Monachijski	2 kg (26.7%)	80 %	16
Grain	Monachijski prazony	0.5 kg (6.7%)	60 %	300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	50 g	60 min	8.8 %
Boil	Perle	20 g	30 min	4.4 %
Aroma (end of boil)	Lubelski	15 g	0 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa GLW35	Lager	Dry	10 g	Gozdawa