

Pollager

- Gravity **10.7 BLG**
- ABV **4.3 %**
- IBU **54**
- SRM **3.9**

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 **12.6 liter(s)**
- Total mash volume **16.8 liter(s)**

Steps

- Temp **53 C**, Time **10 min**
- Temp **66 C**, Time **50 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **12.6 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **50 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.6 kg (85.7%)	81 %	4
Grain	Monachijski	0.6 kg (14.3%)	80 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	marynka	50 g	60 min	8.5 %
Boil	lubelski	25 g	10 min	3.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Dry	11.5 g	---