

Apym

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **36**
- SRM **10.9**
- Style **Vienna Lager**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **54.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **60.9 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **5 liter(s) / kg**
- Mash size **60 liter(s)**
- Total mash volume **72 liter(s)**

Steps

- Temp **62 C**, Time **70 min**
- Temp **75 C**, Time **5 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **60 liter(s)** of strike water to **66.2C**
- Add grains
- Keep mash **70 min** at **62C**
- Keep mash **5 min** at **75C**
- Keep mash **5 min** at **78C**
- Sparge using **12.9 liter(s)** of **76C** water or to achieve **60.9 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Briess - Pale Ale Malt	2 kg (16.7%)	80 %	7
Grain	Strzegom Monachijski typ II	2.5 kg (20.8%)	79 %	22
Grain	Abbey Malt Weyermann	5 kg (41.7%)	75 %	45
Grain	Strzegom Wiedeński	2.5 kg (20.8%)	79 %	10

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Columbus/Tomahawk/Zeus	45 g	70 min	16.1 %
Aroma (end of boil)	athanum	50 g	0 min	3.4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	0.5 ml	Fermentis