

P1

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **19**
- SRM **3.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **5.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **6.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **4.2 liter(s)**
- Total mash volume **5.4 liter(s)**

Steps

- Temp **32 C**, Time **10 min**
- Temp **62 C**, Time **20 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **4.2 liter(s)** of strike water to **33.7C**
- Add grains
- Keep mash **10 min** at **32C**
- Keep mash **20 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **3.4 liter(s)** of **76C** water or to achieve **6.4 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	1.2 kg (100%)	80.6 %	4.5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	6 g	60 min	6.8 %
Aroma (end of boil)	Lublin (Lubelski)	2 g	5 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	5.75 g	Fermentis