

Apka

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **54**
- SRM **3.9**
- Style **American Pale Ale**

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 **12 %/h**
- Boil size **26.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **14.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.6 liter(s)** of **76C** water or to achieve **26.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4.2 kg (87.5%)	80 %	5
Grain	Pszeniczny	0.3 kg (6.3%)	85 %	4
Grain	Weyermann - Carapils	0.3 kg (6.3%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8 %
Boil	Idaho	15 g	30 min	12.7 %
Boil	azacca	15 g	30 min	10 %
Boil	Vic secret	25 g	10 min	9 %
Dry Hop	Idaho 7	25 g	4 day(s)	12.7 %
Dry Hop	Azacca	25 g	4 day(s)	10 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis