

PPA Zula single hop

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **34**
- SRM **5.6**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **9.4 liter(s)**
- Total mash volume **13.1 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **9.4 liter(s)** of strike water to **76.4C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **19.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.25 kg (86.7%)	80 %	6.5
Grain	Weyermann - Carared	0.25 kg (6.7%)	75 %	45
Grain	Viking Wheat Malt	0.25 kg (6.7%)	83 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	15 g	60 min	7 %
Boil	Zula	15 g	30 min	7 %
Boil	Zula	20 g	10 min	7 %
Dry Hop	Zula	50 g	5 day(s)	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	9.58 g	Safale