

# Zula Single Hop

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **43**
- SRM **4.9**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **0 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **11.8 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (83.3%)	80 %	5
Grain	Viking Wheat Malt	1 kg (16.7%)	83 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	25 g	60 min	8.3 %
Boil	Zula	30 g	10 min	8.3 %
Boil	Zula	40 g	5 min	8.3 %
Aroma (end of boil)	Zula	30 g	1 min	8.3 %
Whirlpool	Zula	30 g	10 min	8.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	10 g	Fermentis