

# SMASH ZULA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **32**
- SRM **3.7**

## Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **41.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **48.1 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **28 liter(s)**
- Total mash volume **36 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **28 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **28.1 liter(s)** of **76C** water or to achieve **48.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8 kg (100%)	80 %	5

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zula	20 g	60 min	7.3 %
Aroma (end of boil)	Zula	50 g	55 min	7.3 %
Dry Hop	Zula	100 g	3 day(s)	7.3 %
Whirlpool	Zula	50 g	5 min	7.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US05	Ale	Dry	23 g	---