

## Vermelho smash

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **30**
- SRM **3.8**

### 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 **7 %/h**
- Boil size **46.8 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **29.8 liter(s)**
- Total mash volume **38.3 liter(s)**

### Steps

- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **29.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **25.5 liter(s)** of **76C** water or to achieve **46.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	8.5 kg (100%)	80 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Vermelho	30 g	60 min	8.1 %
Aroma (end of boil)	Vermelho	40 g	20 min	8.1 %
Aroma (end of boil)	Vermelho	50 g	5 min	8.1 %
Dry Hop	Vermelho	80 g	3 day(s)	8.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	200 ml	---