

# Grodove

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- Gravity **8 BLG**
- ABV **3.1 %**
- IBU **58**
- SRM **10**

## 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 **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.6 liter(s)**
- Total mash volume **12.8 liter(s)**

## Steps

- Temp **63 C**, Time **45 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **9.6 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **45 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Bruntal Pilzneński Klepiskowy	1 kg (31.3%)	81 %	5
Grain	Viking Golden ale	2 kg (62.5%)	80 %	14
Grain	Viking Czekoladowy jasny	0.2 kg (6.3%)	68 %	400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	30 g	45 min	15 %
Boil	Wai-iti	30 g	15 min	2.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11.5 g	Fermentis