

# mustasch brown ale

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **24**
- SRM **20.2**
- Style **Northern English Brown Ale**

## Batch size

- Expected quantity of finished beer **22.5 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **28.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

## Steps

- Temp **67 C**, Time **70 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **18.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **28.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	colorado pale base	4.5 kg (83.3%)	83 %	6
Grain	Biscuit Malt	0.3 kg (5.6%)	79 %	45
Grain	Dark Chocolate Malt	0.2 kg (3.7%)	60 %	1300
Grain	Strzegom Karmel 300	0.2 kg (3.7%)	70 %	299
Grain	Płatki żytnie	0.2 kg (3.7%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8 %
Boil	Marynka	30 g	10 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min