

# Brown Ale

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **20**
- SRM **15.7**
- Style **American Brown Ale**

## 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **68 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.7 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (84.7%)	80 %	4
Grain	Biscuit Malt	0.3 kg (5.1%)	79 %	45
Grain	Jęczmień palony	0.1 kg (1.7%)	55 %	985
Grain	Brown Malt (British Chocolate)	0.5 kg (8.5%)	70 %	175

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	20 g	60 min	8.8 %
Aroma (end of boil)	Sybilla	20 g	5 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Liquid	100 ml	---

## Extras

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