

# Brązowe ALE

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **24**
- SRM **20.8**
- Style **Northern English Brown Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **65 min**
- Evaporation rate **12 %/h**
- Boil size **26 liter(s)**

## Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **30 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **14 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **16 liter(s)** of **76C** water or to achieve **26 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt - Pale Ale Zero	3.5 kg (87.5%)	80 %	8
Grain	Weyermann - Carahell	0.3 kg (7.5%)	80 %	30
Grain	Weyermann - Carafa III	0.2 kg (5%)	65 %	1500

dodaje podczas 2 przerwy

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Zeus	7 g	60 min	14 %
Boil	Lublin (Lubelski)	20 g	30 min	6 %
Aroma (end of boil)	Lublin (Lubelski)	30 g	1 min	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	400 ml	xxx

gęstwa 0,4 l (płynna po przemyciu)