

# Altbier

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **28**
- SRM **12.4**
- Style **Old Ale**

## Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **2 %**
- Size with trub loss **30.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34 liter(s)**

## Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **26.6 liter(s)**
- Total mash volume **33.2 liter(s)**

## Steps

- Temp **64 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **75 C**, Time **5 min**

## Mash step by step

- Heat up **26.6 liter(s)** of strike water to **69.5C**
- Add grains
- Keep mash **50 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **75C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **34 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	4.5 kg (67.8%)	79 %	16
Grain	Viking - pilzneński	1 kg (15.1%)	82 %	4
Grain	Weyermann - Caramunich Typ II	0.6 kg (9%)	73 %	120
Grain	Płatki owsiane błyskawiczne	0.5 kg (7.5%)	80 %	3
Grain	Weyermann - Carafa III	0.04 kg (0.6%)	70 %	1400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	goryczkowy Marynka - szyszki własny zbiór	35 g	60 min	10 %
Boil	aromatyczny Hallertau Hersbrucker	25 g	5 min	2.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

FM42 Stare Nadreńskie	Ale	Liquid	1000 ml	---
-----------------------	-----	--------	---------	-----