

# Altbier

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **41**
- SRM **8.2**
- Style **Düsseldorf Altbier**

## 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 **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	5 kg (100%)	80 %	16

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hersbrucker	70 g	60 min	4.9 %
Boil	Hersbrucker	30 g	5 min	4.9 %
Aroma (end of boil)	Hersbrucker	20 g	1 min	4.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
s-33	Ale	Slant	200 ml	---