

# Altbier

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- Gravity **18 BLG**
- ABV ---
- IBU **61**
- SRM **26.3**

## Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **18.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.9 liter(s)**
- Total mash volume **18.6 liter(s)**

## Steps

- Temp **52 C**, Time **1 min**
- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **13.9 liter(s)** of strike water to **57.4C**
- Add grains
- Keep mash **1 min** at **52C**
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **18.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	3.6 kg (77.4%)	80 %	16
Grain	Karamelmalz	0.5 kg (10.8%)	--- %	120
Grain	Weizenmalz hell	0.5 kg (10.8%)	--- %	4
Grain	Farbmalz	0.05 kg (1.1%)	--- %	1400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	27 g	90 min	15 %
Boil	Saphir Aroma	12 g	5 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Kolsch	Ale	Liquid	125 ml	Wyeast Labs