

## Altbier#2

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **31**
- SRM **14.2**
- Style **Düsseldorf Altbier**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **30.8 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.3 liter(s)**
- Total mash volume **24.8 liter(s)**

### Steps

- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **19.3 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **5 min** at **76C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **30.8 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann Monachijski typ II 20-25 EBC	1 kg (18.2%)	80 %	20
Grain	Weyermann Monachiski I	2 kg (36.4%)	80 %	16
Grain	Weyermann - Vienna Malt	1.4 kg (25.5%)	81 %	8
Grain	Viking Karmel 150	0.2 kg (3.6%)	75 %	150
Grain	Viking Malt Słod Barwiący	0.1 kg (1.8%)	65 %	1300
Grain	Viking Vienna Malt	0.5 kg (9.1%)	79 %	7
Grain	Viking Wheat Malt	0.3 kg (5.5%)	83 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	20 g	60 min	12.4 %
Aroma (end of boil)	Izabella	30 g	10 min	7.6 %

### Yeasts

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

<b>Name</b>	<b>Type</b>	<b>Form</b>	<b>Amount</b>	<b>Laboratory</b>
FM42 Stare Nadreńskie	Ale	Liquid	1300 ml	Fm

### **Extras**

<b>Type</b>	<b>Name</b>	<b>Amount</b>	<b>Use for</b>	<b>Time</b>
Fining	Wirflock	5 g	Boil	10 min