

## LEM | Altbier

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **15**
- SRM **12.1**
- Style **Northern German Altbier**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.4 liter(s)**
- Boil time **70 min**
- Evaporation rate **25 %/h**
- Boil size **26.6 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **18.8 liter(s)**
- Total mash volume **23.5 liter(s)**

### Steps

- Temp **53 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **73 C**, Time **30 min**
- Temp **79 C**, Time **0 min**

### Mash step by step

- Heat up **18.8 liter(s)** of strike water to **57.1C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **63C**
- Keep mash **30 min** at **73C**
- Keep mash **0 min** at **79C**
- Sparge using **12.5 liter(s)** of **76C** water or to achieve **26.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt Monachijski Jasny	4.5 kg (95.7%)	79 %	16
Grain	Viking Malt Karmelowy 300	0.2 kg (4.3%)	70 %	299

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Hallertau Spalt Select	20 g	55 min	4.2 %
Boil	Hallertau Spalt Select	10 g	25 min	4.2 %
Boil	Hallertau Spalt Select	10 g	5 min	4.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-33	Ale	Dry	11 g	Fermentis

### Extras

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

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1.29 g	Boil	5 min