

## 07B. Altbier

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **29**
- SRM **14.8**
- Style **Northern German Altbier**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **3 %**
- Size with trub loss **18.5 liter(s)**
- Boil time **90 min**
- Evaporation rate **7 %/h**
- Boil size **21.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **4.46 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **20.8 liter(s)**

### Steps

- Temp **67 C**, Time **90 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **1 min** at **76C**
- Sparge using **7.9 liter(s)** of **76C** water or to achieve **21.1 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (65.7%)	81 %	4
Grain	Strzegom Monachijski typ I	1 kg (26.3%)	79 %	16
Grain	Weyermann Caramunich 3	0.114 kg (3%)	76 %	150
Grain	Carafa II	0.114 kg (3%)	70 %	812
Grain	Strzegom Czekoladowy jasny	0.08 kg (2.1%)	68 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	15 g	60 min	6.2 %
Aroma (end of boil)	Perle	15 g	30 min	6.2 %
Aroma (end of boil)	Hallertau Spalt Select	30 g	15 min	3.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand Köln Koelsch	Ale	Dry	14 g	---

## Extras

Type	Name	Amount	Use for	Time
Water Agent	CaCO3	4 g	Boil	90 min

## Notes

- 15 C 5-7  
18 C 2  
2 C 14-21  
*Sep 3, 2021, 6:05 PM*