

ALTBIER

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **33**
- SRM **12.7**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **12 %/h**
- Boil size **32.8 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **26.3 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **2 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **2 min** at **78C**
- Sparge using **18.2 liter(s)** of **76C** water or to achieve **32.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner Malt	3.5 kg (59.8%)	82 %	4
Grain	Monachijski typ II 20-25 EBC Weyermann	2 kg (34.2%)	80 %	25
Grain	Słód Caramunich Typ II Weyermann	0.25 kg (4.3%)	73 %	120
Grain	Weyermann - Dehusked Carafa II	0.1 kg (1.7%)	70 %	1100

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	23 g	60 min	11.2 %
Aroma (end of boil)	Hallertau Mittelfruh	25 g	10 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Old German Altbier	Ale	Dry	12.5 g	?

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	0.25 g	Boil	10 min