

# Altbier - przykładowa receptura

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **41**
- SRM **15.1**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **26.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **19.2 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **14.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.9 kg (60.5%)	81 %	4
Grain	Strzegom Monachijski typ II	1.5 kg (31.3%)	79 %	22
Grain	Słód Caramunich Typ II Weyermann	0.3 kg (6.3%)	73 %	120
Grain	Viking Barwiący	0.09 kg (1.9%)	65 %	1400

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	45 g	60 min	7 %
Boil	Spalt	15 g	15 min	5.5 %
Aroma (end of boil)	Spalt	20 g	1 min	5.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand Köln	Ale	Dry	11 g	Lallemand