

# Altbier Dusseldorfer

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **35**
- SRM **14.1**
- 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 **60 min**
- Evaporation rate **7 %/h**
- Boil size **22.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **21.6 liter(s)**

## Steps

- Temp **64.5 C**, Time **60 min**
- Temp **76 C**, Time **15 min**

## Mash step by step

- Heat up **17.2 liter(s)** of strike water to **70.1C**
- Add grains
- Keep mash **60 min** at **64.5C**
- Keep mash **15 min** at **76C**
- Sparge using **10 liter(s)** of **76C** water or to achieve **22.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	BESTMALZ - Best Pilsen	2.4 kg (55.7%)	80.5 %	4
Grain	Monachijski	0.8 kg (18.6%)	80 %	16
Grain	Strzegom Wiedeński	0.8 kg (18.6%)	79 %	10
Grain	Weyermann Caramunich 3	0.2 kg (4.6%)	76 %	150
Grain	Carafa III	0.11 kg (2.6%)	70 %	1034

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	22 g	60 min	11 %
Boil	Hellertau Mittelfrüh	30 g	15 min	3.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale K-97	Ale	Slant	200 ml	Fermentis