

# Dusseldorf ala Altbier

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **49**
- SRM **11.1**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **20.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.7 liter(s)**
- Total mash volume **21.5 liter(s)**

## Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **16.7 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski typ I	4 kg (83.9%)	80 %	15
Grain	Weyermann pszeniczny jasny	0.25 kg (5.2%)	80 %	6
Grain	Weyermann - Carared	0.5 kg (10.5%)	75 %	45
Grain	Carafa II	0.02 kg (0.4%)	70 %	812

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	15 g	60 min	11.6 %
Boil	Magnum	15 g	40 min	11.6 %
Boil	Tettnang	20 g	15 min	3.8 %
Aroma (end of boil)	Tettnang	10 g	1 min	3.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM50 Kłosy Kansas	Wheat	Liquid	80 ml	Fermentum Mobile

## 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	mech irlandzki	2.5 g	Boil	10 min