

# ALTBIER 14 BLG # 88

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **39**
- SRM **11.8**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **17.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.7 liter(s)**
- Total mash volume **16.3 liter(s)**

## Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **12.7 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **17.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ II	1.4 kg (38.6%)	79 %	22
Grain	Pilzneński	1 kg (27.5%)	81 %	4
Grain	Karmelowy Jasny 30EBC	0.2 kg (5.5%)	75 %	30
Grain	Strzegom Monachijski typ I	1 kg (27.5%)	79 %	16
Grain	Strzegom Czekoladowy ciemny	0.03 kg (0.8%)	68 %	1200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	40 g	60 min	6.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
Fining	Tabletka Whirlfloc	2 g	Boil	5 min