

Altbier

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **10.7**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **9 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	1.5 kg (50%)	79 %	16
Grain	Strzegom Wiedeński	1 kg (33.3%)	79 %	10
Grain	Abbey Malt Weyermann	0.4 kg (13.3%)	75 %	45
Grain	Weyermann Caramunich 3	0.1 kg (3.3%)	76 %	150

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tradition	15 g	60 min	5.5 %
Boil	Tradition	20 g	10 min	5.5 %
Boil	Tradition	15 g	5 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Fermentis