

Altbier

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **45**
- SRM **13.7**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **2.5 %**
- Size with trub loss **10.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **12.6 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **9.6 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **69.1C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **7.2 liter(s)** of **76C** water or to achieve **12.6 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pilsner Malt	1.25 kg (58.4%)	81 %	5
Grain	Strzegom Monachijski typ I	0.75 kg (35%)	79 %	16
Grain	Caraaroma	0.115 kg (5.4%)	78 %	400
Grain	Weyermann - Carafa I	0.025 kg (1.2%)	70 %	690

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	18 g	60 min	9.5 %
Boil	Saaz (Czech Republic)	10 g	15 min	3.5 %
Aroma (end of boil)	Saaz (Czech Republic)	10 g	0 min	3.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM42 Stare Nadreńskie	Ale	Liquid	30 ml	Fermentum Mobile

Extras

Type	Name	Amount	Use for	Time
Fining	Mech irlandzki	3 g	Boil	15 min