### **German Altbier**

- Gravity 12.4 BLG
- ABV **5** %
- IBU **58**
- SRM **17.2**
- Style Northern English Brown Ale

#### **Batch size**

- Expected quantity of finished beer 25 liter(s)
- Trub loss 5 %
- Size with trub loss 27.5 liter(s)
- Boil time 65 min
- Evaporation rate 10 %/h
- Boil size 33.3 liter(s)

## **Mash information**

- Mash efficiency 75 %
- Liquor-to-grist ratio 3 liter(s) / kg
- Mash size 19.6 liter(s)
- Total mash volume 26.1 liter(s)

### **Steps**

- Temp 62 C, Time 25 min
  Temp 72 C, Time 40 min
- Temp 78 C, Time 10 min

## Mash step by step

- Heat up 19.6 liter(s) of strike water to 69C
- Add grains
- Keep mash 25 min at 62C
- Keep mash 40 min at 72C
- Keep mash 10 min at 78C
- Sparge using 20.2 liter(s) of 76C water or to achieve 33.3 liter(s) of wort

### **Fermentables**

Туре	Name	Amount	Yield	EBC
Grain	Bindewald Pilsen	5 kg (76.6%)	80.5 %	3
Grain	Premium English Caramalt	0.5 kg <i>(7.7%)</i>	76 %	60
Grain	Carahell	0.25 kg <i>(3.8%)</i>	77 %	25
Grain	Płatki owsiane	0.25 kg <i>(3.8%)</i>	85 %	3
Grain	Weyermann - Pale Wheat Malt	0.125 kg <i>(1.9%)</i>	85 %	5
Grain	Caramunich® typ I	0.2 kg (3.1%)	73 %	80
Grain	Carafa III	0.1 kg <i>(1.5%)</i>	70 %	1400
Grain	Black Barley (Roast Barley)	0.1 kg <i>(1.5%)</i>	55 %	1200

# **Hops**

Use for	Name	Amount	Time	Alpha acid
Boil	Admiral	25 g	65 min	14.3 %
Boil	Sladek	45 g	25 min	9 %
Whirlpool	Simcoe	15 g	10 min	13.8 %
Dry Hop	Simcoe	30 g	3 day(s)	13.8 %

# **Yeasts**

Name	Туре	Form	Amount	Laboratory
Safale S-04	Ale	Slant	200 ml	

# **Extras**

Туре	Name	Amount	Use for	Time
Fining	Irish Moss	5 g	Boil	15 min