

Altbier

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **32**
- SRM **8.3**
- Style **Northern German Altbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **14.2 liter(s)**
- Total mash volume **19.9 liter(s)**

Steps

- Temp **66 C**, Time **35 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **14.2 liter(s)** of strike water to **75.2C**
- Add grains
- Keep mash **35 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **23.7 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	2.3 kg (40.4%)	79 %	16
Grain	Pilzneński	1.5 kg (26.3%)	81 %	4
Grain	Strzegom Monachijski typ II	1.5 kg (26.3%)	79 %	22
Grain	Caramunich® typ I	0.3 kg (5.3%)	73 %	80
Grain	Carared	0.1 kg (1.8%)	75 %	39

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13.5 %
Boil	Puławski pl	10 g	10 min	7 %
Aroma (end of boil)	pulaski	10 g	0 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
fm 50 po crem ale	Ale	Slant	200 ml	---