Altbier

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **44**
- SRM **9**
- Style **Northern German Altbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.1 liter(s)**

Steps

- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **12.1 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **40 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Monachijski	2.6 kg *(64.5%)*	80 %	16
Grain	Strzegom Wiedeński	1.4 kg *(34.7%)*	79 %	10
Grain	Strzegom Barwiący	0.03 kg *(0.7%)*	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	45 g	60 min	7 %
Boil	Hersbrucker	20 g	40 min	3 %

Yeasts

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

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.