

alt

- Gravity **11.8 BLG**
- ABV ---
- IBU **38**
- SRM **18.2**
- Style **Northern German Altbier**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **4 liter(s) / kg**
- Mash size **17.2 liter(s)**
- Total mash volume **21.5 liter(s)**

Steps

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

Mash step by step

- Heat up **17.2 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Monachijski typ I	4 kg (93%)	79 %	16
Grain	Strzegom Karmel 150	0.25 kg (5.8%)	75 %	150
Grain	Strzegom Barwiący	0.05 kg (1.2%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Iunga	15 g	60 min	10 %
Boil	Tradition	30 g	30 min	5.5 %
Boil	Tradition	15 g	15 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	10 g	Safbrew