

Alt Warp

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **31**
- SRM **13.6**
- Style **Northern German Altbier**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **21.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.2 liter(s)**
- Total mash volume **16.3 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Wiedeński	1.5 kg (36.8%)	79 %	10
Grain	Strzegom Monachijski typ I	2.5 kg (61.3%)	79 %	16
Grain	Strzegom Barwiący	0.08 kg (2%)	68 %	1300

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Perle	15 g	50 min	7 %
Boil	Hersbrucker	10 g	60 min	3 %
Boil	Perle	15 g	30 min	7 %
Boil	Hersbrucker	10 g	20 min	3 %
Boil	Perle	15 g	5 min	7 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safbrew S-33	Ale	Dry	11.5 g	Safbrew