

ALT- Magnum 44

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **52**
- SRM **6**
- Style **Düsseldorf Altbier**

Batch size

- Expected quantity of finished beer **36 liter(s)**
- Trub loss **5 %**
- Size with trub loss **37.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **45.5 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28.5 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **45 min**

Mash step by step

- Heat up **21 liter(s)** of strike water to **74.2C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **45 min** at **72C**
- Sparge using **32 liter(s)** of **76C** water or to achieve **45.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.5 kg (33.3%)	80 %	4
Grain	Strzegom Monachijski typ I	5 kg (66.7%)	79 %	16

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	22 g	50 min	13.5 %
Boil	Magnum	50 g	35 min	13.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	22 g	Fermentis