

# Schumacher Altbier PK

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **33**
- SRM **14.3**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **22.5 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **16.2 liter(s)**

## Steps

- Temp **55 C**, Time **5 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **12.1 liter(s)** of strike water to **60.9C**
- Add grains
- Keep mash **5 min** at **55C**
- Keep mash **60 min** at **63C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **14.5 liter(s)** of **76C** water or to achieve **22.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Munich Malt	2 kg (49.4%)	80 %	18
Grain	Vienna Malt	1.5 kg (37%)	78 %	8
Grain	Słód Caramunich Typ II Weyermann	0.5 kg (12.3%)	73 %	120
Grain	Weyermann - Carafa II	0.05 kg (1.2%)	70 %	1100

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Tettnang	50 g	60 min	5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Wyeast - Kolsch	Ale	Slant	50 ml	Wyeast Labs

## Notes

- Weyermann - Carafa II dodac po przerwie maltozowej  
*Oct 29, 2018, 9:00 PM*