

# Aaa1

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **67**
- SRM **9.4**
- Style **American Amber Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.6 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **66 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **71.1C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **66C**
- Keep mash **1 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Wiedeński	4 kg (72.7%)	79 %	10
Grain	Strzegom Monachijski typ I	0.6 kg (10.9%)	79 %	16
Grain	Karmelowy Jasny 30EBC	0.7 kg (12.7%)	75 %	30
Grain	Crystal II 200	0.2 kg (3.6%)	71 %	200

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	15 g	60 min	11.2 %
Boil	Magnat	10 g	50 min	11.2 %
Boil	Magnat	10 g	40 min	11.2 %
Boil	Magnat	10 g	35 min	11.2 %
Boil	Magnat	10 g	30 min	11.2 %
Boil	Lublin (Lubelski)	20 g	25 min	4 %
Boil	Lublin (Lubelski)	15 g	20 min	4 %
Boil	Lublin (Lubelski)	10 g	10 min	4 %
Boil	Lublin (Lubelski)	5 g	5 min	4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale