

Single hop Amarillo

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **57**
- SRM **4.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **13 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.2 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **12.3 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.4 liter(s)** of **76C** water or to achieve **17.2 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1.5 kg (42.9%)	79 %	6
Grain	Strzegom Pilzniejszy	1.5 kg (42.9%)	80 %	4
Grain	Weyermann - Carapils	0.5 kg (14.3%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	30 g	60 min	9.5 %
Boil	Amarillo	15 g	15 min	9.5 %
Dry Hop	Amarillo	15 g	5 day(s)	9.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis