

## #12 Single Hop Amarillo

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **45**
- SRM **4.4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22.6 liter(s)**

### Steps

- Temp **53 C**, Time **10 min**
- Temp **64 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **10 min** at **53C**
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	5 kg (88.5%)	80 %	5
Grain	Strzegom Pszeniczny	0.5 kg (8.8%)	81 %	6
Grain	Weyermann - Carapils	0.15 kg (2.7%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	40 g	60 min	7.8 %
Boil	Amarillo	30 g	15 min	7.8 %
Boil	Amarillo	30 g	5 min	7.8 %
Boil	Amarillo	30 g	0 min	7.8 %
Dry Hop	Amarillo	50 g	6 day(s)	7.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	300 ml	Fermentis