

# Amarillo 2020 ver. 1.0

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **45**
- SRM **5.9**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **9 %**
- Size with trub loss **12 liter(s)**
- Boil time **60 min**
- Evaporation rate **16 %/h**
- Boil size **16 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.33 liter(s) / kg**
- Mash size **10 liter(s)**
- Total mash volume **13 liter(s)**

## Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **80 C**, Time **1 min**

## Mash step by step

- Heat up **10 liter(s)** of strike water to **70.6C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **80C**
- Sparge using **9 liter(s)** of **76C** water or to achieve **16 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Malt - Pale Ale	2.5 kg (83.3%)	80 %	7
Grain	Simpsons - Golden Naked Oats	0.25 kg (8.3%)	73 %	20
Grain	Weyermann - Zakwaszający	0.15 kg (5%)	80 %	5
Grain	Viking Malt - Cookie	0.1 kg (3.3%)	80 %	50

## Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Amarillo (USA - 2020)	100 g	20 min	8.4 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Fermentis

## Extras

Type	Name	Amount	Use for	Time
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Other	Woda zacieranie (Olsztyńska - Nagórki)	10000 g	Mash	71 min
Other	Woda wyładzanie (Olsztyńska - Nagórki)	10000 g	Mash	71 min
Fining	Whirlfloc T	1 g	Boil	5 min