

# Rye IPA single hop Amarillo

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **49**
- SRM **5.5**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **20.1 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **8.8 liter(s)** of **76C** water or to achieve **20.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3.5 kg (77.8%)	85 %	7
Grain	Weyermann - Rye Malt	1 kg (22.2%)	85 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	15 g	60 min	15.1 %
Aroma (end of boil)	Amarillo	10 g	50 min	15.1 %
Whirlpool	Amarillo	15 g	0 min	15.1 %
Dry Hop	Amarillo	20 g	5 day(s)	15.1 %
Dry Hop	Amarillo	30 g	2 day(s)	8.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM54 Gorączka kalifornijska	Ale	Liquid	800 ml	Fermentum Mobile