

# 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 |