

# Red

- Gravity **15.9 BLG**
- ABV ---
- IBU **52**
- SRM **14**
- Style **Red IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **80 min**
- Evaporation rate **15 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.2 liter(s)**
- Total mash volume **27.2 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **71 C**, Time **15 min**
- Temp **77 C**, Time **4 min**

## Mash step by step

- Heat up **21.2 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **15 min** at **71C**
- Keep mash **4 min** at **77C**
- Sparge using **13.9 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount          | Yield  | EBC |
|-------|-----------------------------|-----------------|--------|-----|
| Grain | Weyermann - Pale Ale Malt   | 4 kg (66.1%)    | 85 %   | 7   |
| Grain | Carared                     | 1 kg (16.5%)    | 75 %   | 39  |
| Grain | Chit Malt                   | 0.75 kg (12.4%) | 50 %   | 2   |
| Grain | Caraaroma                   | 0.1 kg (1.7%)   | 78 %   | 400 |
| Grain | Caramunich Malt             | 0.1 kg (1.7%)   | 71.7 % | 110 |
| Grain | Weyermann - Melanoiden Malt | 0.1 kg (1.7%)   | 81 %   | 53  |

## Hops

| Use for   | Name                   | Amount | Time   | Alpha acid |
|-----------|------------------------|--------|--------|------------|
| Boil      | Magnum                 | 20 g   | 60 min | 13.5 %     |
| Boil      | Columbus/Tomahawk/Zeus | 10 g   | 30 min | 16.7 %     |
| Boil      | Cascade                | 25 g   | 15 min | 6.7 %      |
| Boil      | Octawia                | 20 g   | 10 min | 7.1 %      |
| Boil      | Amarillo               | 20 g   | 5 min  | 9.5 %      |
| Whirlpool | Amarillo               | 20 g   | 10 min | 9.5 %      |
| Whirlpool | Mosaic                 | 10 g   | 10 min | 10 %       |

|         |         |      |          |      |
|---------|---------|------|----------|------|
| Dry Hop | Mosaic  | 20 g | 4 day(s) | 10 % |
| Dry Hop | Cascade | 30 g | 4 day(s) | 6 %  |
| Dry Hop | Citra   | 20 g | 4 day(s) | 12 % |

## Yeasts

| <b>Name</b>          | <b>Type</b> | <b>Form</b> | <b>Amount</b> | <b>Laboratory</b> |
|----------------------|-------------|-------------|---------------|-------------------|
| FM52 Amerykański Sen | Ale         | Slant       | 300 ml        | Fermentum Mobile  |