

# Rye IPA

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **67**
- SRM **9.8**
- Style **Rye 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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**

## Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount        | Yield | EBC |
|-------|--------------------------|---------------|-------|-----|
| Grain | Strzegom Pale Ale        | 4 kg (66.7%)  | 79 %  | 6   |
| Grain | Żytni                    | 1.5 kg (25%)  | 85 %  | 8   |
| Grain | Karmelowy żytni Strzegom | 0.5 kg (8.3%) | 75 %  | 150 |

## Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 30 g   | 60 min   | 15.7 %     |
| Aroma (end of boil) | Amarillo               | 15 g   | 15 min   | 8.8 %      |
| Aroma (end of boil) | Mosaic                 | 15 g   | 15 min   | 12 %       |
| Aroma (end of boil) | Cascade                | 15 g   | 15 min   | 7.7 %      |
| Dry Hop             | Amarillo               | 15 g   | 5 day(s) | 8.8 %      |
| Dry Hop             | Mosaic                 | 15 g   | 5 day(s) | 12 %       |
| Dry Hop             | Cascade                | 15 g   | 5 day(s) | 7.7 %      |

## Yeasts

| Name  | Type | Form  | Amount | Laboratory |
|-------|------|-------|--------|------------|
| fm 52 | Ale  | Slant | 120 ml | ---        |