

## #43 Rye IPa

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **60**
- SRM **7.2**
- 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 **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount          | Yield | EBC |
|-------|----------------------------|-----------------|-------|-----|
| Grain | Strzegom Pilzneński        | 3 kg (52.6%)    | 80 %  | 4   |
| Grain | Rye Malt                   | 1.75 kg (30.7%) | 63 %  | 10  |
| Grain | Barley, Flaked             | 0.4 kg (7%)     | 70 %  | 4   |
| Grain | Strzegom Red active        | 0.3 kg (5.3%)   | 75 %  | 36  |
| Grain | Karmelowy Jasny 30EBC      | 0.2 kg (3.5%)   | 75 %  | 30  |
| Grain | Strzegom Czekoladowy jasny | 0.05 kg (0.9%)  | 68 %  | 400 |

### Hops

| Use for | Name                   | Amount | Time     | Alpha acid |
|---------|------------------------|--------|----------|------------|
| Boil    | Columbus/Tomahawk/Zeus | 30 g   | 60 min   | 15.8 %     |
| Boil    | Bramling Cross         | 30 g   | 20 min   | 6.1 %      |
| Boil    | African Queen          | 20 g   | 0 min    | 11.8 %     |
| Boil    | Equinox                | 20 g   | 0 min    | 14 %       |
| Dry Hop | African Queen          | 30 g   | 4 day(s) | 11.8 %     |
| Dry Hop | Equinox                | 30 g   | 4 day(s) | 14 %       |

### Yeasts

| Name                        | Type | Form   | Amount | Laboratory       |
|-----------------------------|------|--------|--------|------------------|
| FM54 Gorączka kalifornijska | Ale  | Liquid | 30 ml  | Fermentum Mobile |

### Extras

| Type   | Name           | Amount | Use for | Time   |
|--------|----------------|--------|---------|--------|
| Other  | łuska gryczana | 100 g  | Mash    | 0 min  |
| Fining | whirlfloc      | 0.5 g  | Boil    | 10 min |