

Rye IPA 15blg

- Gravity **15.8 BLG**
- ABV ---
- IBU **77**
- SRM **7.9**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **15 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **33 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

Steps

- Temp **51 C**, Time **10 min**
- Temp **65 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **22.8 liter(s)** of strike water to **55.4C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **60 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **77C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **33 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4.5 kg (69.2%) | 80 % | 4 |
| Grain | Żytmi | 1.5 kg (23.1%) | 85 % | 8 |
| Grain | Strzegom Karmel 30 | 0.4 kg (6.2%) | 75 % | 30 |
| Grain | Strzegom Karmel 150 | 0.1 kg (1.5%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Marynka | 45 g | 60 min | 10 % |
| Boil | Citra | 20 g | 30 min | 13 % |
| Boil | Citra | 20 g | 15 min | 13 % |
| Aroma (end of boil) | Citra | 30 g | 5 min | 13 % |
| Dry Hop | Citra | 60 g | 4 day(s) | 12 % |
| Dry Hop | Amarillo | 30 g | 4 day(s) | 9.5 % |
| Aroma (end of boil) | Cascade | 15 g | 5 min | 6 % |
| Dry Hop | Cascade | 15 g | 4 day(s) | 6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|--------|--------|------------------|
| FM52 Amerykański Sen | Ale | Liquid | 30 ml | Fermentum Mobile |