

Rye IPA

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **63**
- SRM **8.5**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.86 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **27 liter(s)**

Steps

- Temp **73 C**, Time **1 min**
- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **74.1C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **1 min** at **73C**
- Keep mash **5 min** at **78C**
- Sparge using **12.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 2.4 kg (34.3%) | 80 % | 5 |
| Grain | Viking Pilsner malt | 2.4 kg (34.3%) | 82 % | 4 |
| Grain | Rye Malt | 1.1 kg (15.7%) | 70 % | 10 |
| Grain | Viking Vienna Malt | 0.8 kg (11.4%) | 79 % | 7 |
| Grain | Strzegom Karmel 150 | 0.3 kg (4.3%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil | Columbus/Tomahawk/Zeus | 20 g | 60 min | 14.7 % |
| Boil | Columbus/Tomahawk/Zeus | 10 g | 30 min | 15.5 % |
| Boil | Centennial | 10 g | 30 min | 10.5 % |
| Boil | Chinook | 10 g | 30 min | 13 % |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 5 g | 10 min | 14.7 % |
| Aroma (end of boil) | Centennial | 5 g | 10 min | 10.5 % |
| Aroma (end of boil) | Chinook | 5 g | 10 min | 13 % |
| Whirlpool | Styrian Cardinal | 20 g | 5 min | 8.7 % |

| | | | | |
|---------|------------------|------|----------|-------|
| Dry Hop | Styrian Cardinal | 30 g | 7 day(s) | 8.7 % |
|---------|------------------|------|----------|-------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | Safale |