

Summer

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **65**
- SRM **5.1**
- Style **Rye IPA**

Batch size

- Expected quantity of finished beer **30 liter(s)**
- Trub loss **5 %**
- Size with trub loss **33 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **41.4 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.9 liter(s) / kg**
- Mash size **26.1 liter(s)**
- Total mash volume **35.1 liter(s)**

Steps

- Temp **55 C**, Time **60 min**
- Temp **66 C**, Time **80 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **26.1 liter(s)** of strike water to **61C**
- Add grains
- Keep mash **60 min** at **55C**
- Keep mash **80 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **24.3 liter(s)** of **76C** water or to achieve **41.4 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (55.6%) | 80 % | 4 |
| Grain | Żytmi | 2 kg (22.2%) | 85 % | 8 |
| Grain | Castlemalting - Cara Clair | 1 kg (11.1%) | 78 % | 4 |
| Grain | Monachijski | 1 kg (11.1%) | 80 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------|--------|----------|------------|
| Boil | Magnat | 50 g | 60 min | 11.2 % |
| Aroma (end of boil) | Cascade | 30 g | 10 min | 6 % |
| Aroma (end of boil) | Cascade | 30 g | 5 min | 6 % |
| Dry Hop | Cascade | 60 g | 7 day(s) | 6 % |
| Whirlpool | Hallertau Blanc | 60 g | 60 min | 11 % |
| Dry Hop | Sorachi Ace | 50 g | 7 day(s) | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|-------------|-------------|---------------|-------------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |