

**XXX**

- Gravity **11.7 BLG**
- ABV ---
- IBU **33**
- SRM **4.6**
- Style **American Wheat or Rye Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.1 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18 liter(s)**

### Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.1 liter(s)** of wort

### Fermentables

| Type    | Name                 | Amount         | Yield | EBC |
|---------|----------------------|----------------|-------|-----|
| Grain   | Viking Pale Ale malt | 2 kg (44.4%)   | 80 %  | 5   |
| Grain   | Strzegom Pszeniczny  | 2 kg (44.4%)   | 81 %  | 6   |
| Adjunct | ryż                  | 0.5 kg (11.1%) | 80 %  | 1   |

### Hops

| Use for             | Name                   | Amount | Time     | Alpha acid |
|---------------------|------------------------|--------|----------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 10 g   | 60 min   | 15.5 %     |
| Boil                | Citra                  | 10 g   | 15 min   | 12 %       |
| Boil                | Citra                  | 10 g   | 10 min   | 12 %       |
| Boil                | Citra                  | 10 g   | 5 min    | 12 %       |
| Aroma (end of boil) | Mosaic                 | 13 g   | 0 min    | 10 %       |
| Whirlpool           | Mosaic                 | 12 g   | 0 min    | 10 %       |
| Dry Hop             | Mosaic                 | 25 g   | 4 day(s) | 10 %       |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 12 g   | Fermentis  |

### Extras

Recipe has been printed via **BREWNES.com** - a complex online solution for homebrewers to track brewing process easily.

| Type   | Name           | Amount | Use for   | Time     |
|--------|----------------|--------|-----------|----------|
| Flavor | skórka limonki | 30 g   | Secondary | 4 day(s) |