

ne

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **31**
- SRM **4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.9 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.8 liter(s)**
- Total mash volume **19.7 liter(s)**

### Steps

- Temp **64 C**, Time **80 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **14.8 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **80 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **23.9 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount          | Yield | EBC |
|-------|----------------------|-----------------|-------|-----|
| Grain | Viking Pale Ale malt | 3.94 kg (80.1%) | 80 %  | 5   |
| Grain | Weyermann - Carapils | 0.44 kg (8.9%)  | 78 %  | 4   |
| Grain | Płatki owsiane       | 0.27 kg (5.5%)  | 85 %  | 3   |
| Grain | Pszeniczny           | 0.27 kg (5.5%)  | 85 %  | 4   |

### Hops

| Use for  | Name       | Amount  | Time     | Alpha acid |
|--|------------|---------|----------|------------|
| Boil   | Fuggles    | 26.25 g | 30 min   | 4.5 %      |
| Aroma (end of boil)  | Citra      | 25 g    | 10 min   | 12 %       |
| Citra 45 g + Mosaic 45 g jako zamienniki dla 90-100 g Falconers Flight |            |         |          |            |
| Aroma (end of boil)  | Mosaic     | 25 g    | 10 min   | 10 %       |
| Dry Hop  | Cascade    | 50 g    | 8 day(s) | 6 %        |
| Dry Hop  | Vic Secret | 50 g    | 8 day(s) | 16.3 %     |
| Dry Hop  | Lemon Drop | 50 g    | 8 day(s) | 4.6 %      |
| Dry Hop  | Equinox    | 25 g    | 8 day(s) | 13.1 %     |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|   |     |       |          |                  |
|---|-----|-------|----------|------------------|
| Safale US-05                              | Ale | Slant | 437.5 ml | Fermentis        |
| starter 150ml w celu rehydratacji drozdzy |     |       |          |                  |
| FM55 Zielone Wzgórze                      | Ale | Slant | 437.5 ml | Fermentum Mobile |
| 1000ml starter z FM55                     |     |       |          |                  |

### Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Fining      | mech irlandzki  | 8.75 g | Boil    | 15 min |
| Water Agent | gips piwowarski | 3.5 g  | Mash    | ---    |