

Czynnik pomarańczowy

- Gravity **11.4 BLG**
- ABV ---
- IBU **51**
- SRM **8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **19.5 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|------------|-------|-----|
| Grain | Viking Pale Ale malt | 3 kg (60%) | 80 % | 5 |
| Grain | Strzegom Monachijski typ I | 1 kg (20%) | 79 % | 16 |
| Grain | Viking melanoidynowy | 1 kg (20%) | 75 % | 60 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Citra | 20 g | 60 min | 12 % |
| Boil | Chinook | 20 g | 30 min | 13 % |
| Aroma (end of boil) | Cascade | 20 g | 20 min | 6 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------------|--------|---------|--------|
| Flavor | Skórka pomarańczowa | 25 g | Boil | 30 min |

| | | | | |
|--------|---------------------|-------|------|--------|
| Flavor | Skórka z mandarynek | 25 g | Boil | 30 min |
| Flavor | Sok z pomarańczy | 500 g | Boil | 30 min |
| Flavor | Sok z mandarynek | 500 g | Boil | 30 min |