

## apa z dodatkami [bitwy piwne 2021]

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **61**
- SRM **4.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **16.6 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.3 liter(s)**
- Total mash volume **15.8 liter(s)**

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 3.2 kg (91.4%) | 82 %  | 4   |
| Grain | Strzegom Wiedeński  | 0.3 kg (8.6%)  | 79 %  | 10  |

### Hops

| Use for   | Name          | Amount | Time     | Alpha acid |
|-----------|---------------|--------|----------|------------|
| Boil      | Iunga         | 30 g   | 30 min   | 9 %        |
| Whirlpool | Nelson Sauvín | 50 g   | 20 min   | 11 %       |
| Dry Hop   | Citra         | 50 g   | 3 day(s) | 12 %       |

### Yeasts

| Name  | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| Us-05 | Ale  | Dry  | 11 g   | ---        |

### Extras

| Type                                                                                                             | Name                                 | Amount | Use for  | Time  |
|------------------------------------------------------------------------------------------------------------------|--------------------------------------|--------|----------|-------|
| Spice                                                                                                            | trawa cytrynowa                      | 3 g    | Boil     | 5 min |
| Spice                                                                                                            | kafir                                | 3 g    | Boil     | 5 min |
| Spice                                                                                                            | skórka limonki                       | 3 g    | Boil     | 5 min |
| Spice                                                                                                            | herbatka z trawy cytrynowej i kafiru | 200 g  | Bottling | ---   |
| herbatka z 5g kafiru i 10g trawy cytrynowej (świeża mrożona) zrobiona w 200ml wody, gotowana ok 5min i odcedzona |                                      |        |          |       |