

Witbier prosty + czarna porzeczka

- Gravity **10.5 BLG**
- ABV **4.2 %**
- IBU **17**
- SRM **3.1**

Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **6 liter(s)**
- Total mash volume **8 liter(s)**

Steps

- Temp **55 C**, Time **20 min**
- Temp **64 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **6 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **20 min** at **55C**
- Keep mash **70 min** at **64C**
- Keep mash **10 min** at **76C**
- Sparge using **8.7 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|--------------|-------|-----|
| Grain | Viking Pilsner malt | 1.5 kg (75%) | 82 % | 4 |
| Grain | Płatki pszeniczne | 0.5 kg (25%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil | Crystal | 7.5 g | 60 min | 4.9 % |
| Aroma (end of boil) | Simcoe | 7.5 g | 10 min | 13.3 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 5.75 g | Safale |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------------------------|--------|---------|--------|
| Flavor | sucha skórka cytryny | 15 g | Boil | 10 min |
| Flavor | sucha skórka gorzkiej pomarańczy | 15 g | Boil | 10 min |

| | | | | |
|--------|-------------------------------------|--------|-----------|-----------|
| Flavor | sucha skórka słodkiej pomarańczy | 15 g | Boil | 10 min |
| Spice | kolendra | 10 g | Boil | 10 min |
| Spice | jałowiec | 5 g | Boil | 10 min |
| Flavor | Czerwona porzeczka | 1000 g | Secondary | 14 day(s) |