

White Pale Ale

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **82**
- SRM **5.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **73 C**, Time **40 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **40 min** at **73C**
- Keep mash **10 min** at **78C**
- Sparge using **15.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|-------------------------------|-------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (98%) | 80 % | 5 |
| Adjunct | Karmelowy Pszeniczny Strzegom | 0.1 kg (2%) | 79 % | 130 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Magnum | 55 g | 60 min | 13.5 % |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g | 10 min | 4 % |
| Dry Hop | Lublin (Lubelski) | 30 g | 7 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|--------------------|
| Safale S-04 | Ale | Slant | 400 ml | Safale do witbiera |

Extras

| Type | Name | Amount | Use for | Time |
|-------|---------------------------|--------|---------|--------|
| Spice | Suszona skórka pomarańczy | 20 g | Boil | 10 min |

| | | | | |
|-------|-----------------------------|------|------|--------|
| Spice | Suszona skórka cytryny | 20 g | Boil | 10 min |
| Spice | Suszona skórka curacao | 25 g | Boil | 10 min |
| Spice | Suszona trawa cytrynowa | 11 g | Boil | 10 min |
| Spice | Nasiona kolendry indyjskiej | 35 g | Boil | 10 min |
| Spice | Imbir suszony (kostka) | 25 g | Boil | 10 min |