

Początek Wiosny

- Gravity **12.9 BLG**
- ABV ---
- IBU **63**
- SRM **6.5**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **17 liter(s)**

Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **77 C**, Time **5 min**

Mash step by step

- Heat up **12.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **77C**
- Sparge using **19.1 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt | 4 kg (94.1%) | 82 % | 4 |
| Grain | Strzegom Karmel 150 | 0.25 kg (5.9%) | 75 % | 150 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|------------|----------|--------|----------|------------|
| Boil | Amarillo | 25 g | 30 min | 9.5 % |
| Boil | Amarillo | 25 g | 5 min | 9.5 % |
| Dry Hop | Citra | 50 g | 7 day(s) | 12 % |
| Boil | Amarillo | 25 g | 10 min | 9.5 % |
| First Wort | Amarillo | 25 g | 60 min | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|---------------|------|------|--------|------------|
| US West Coast | Ale | Dry | 10 g | Gozdawa |