

PIPA3

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **43**
- SRM **6.5**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **18.9 liter(s)**
- Total mash volume **24.3 liter(s)**

Steps

- Temp **65 C**, Time **40 min**
- Temp **72 C**, Time **40 min**

Mash step by step

- Heat up **18.9 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **40 min** at **72C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 3.6 kg (66.7%) | 80 % | 4 |
| Grain | Viking Pale Ale malt | 0.9 kg (16.7%) | 80 % | 5 |
| Grain | Monachijski | 0.4 kg (7.4%) | 80 % | 16 |
| Grain | Karmelowy Czerwony | 0.5 kg (9.3%) | 75 % | 59 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil | Marynka | 30 g | 60 min | 10.5 % |
| Boil | Centennial | 15 g | 20 min | 8.5 % |
| Boil | Ahtanum | 15 g | 10 min | 3.4 % |
| Dry Hop | Centennial | 15 g | 5 day(s) | 8.5 % |
| Dry Hop | Ahtanum | 15 g | 5 day(s) | 3.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------|------|------|--------|------------|
| Danstar - Windsor Ale | Ale | Dry | 11 g | Danstar |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|---------------|----------------|-------------|
| Spice | trawa cytrynowa | 20 g | Boil | 10 min |
| Water Agent | gips piwowarski | 15 g | Mash | 100 min |
| Water Agent | chlorek wapnia | 10 g | Boil | 60 min |