

AIPA bez granatów

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **44**
- SRM **3.8**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.2 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21 liter(s)**

Steps

- Temp **45 C**, Time **25 min**
- Temp **68 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **48.9C**
- Add grains
- Keep mash **25 min** at **45C**
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **78C**
- Sparge using **14.7 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------------|--------------|-------|-----|
| Grain | Simpsons - Maris Otter | 1.5 kg (30%) | 81 % | 3 |
| Grain | Viking Pale Ale malt | 1 kg (20%) | 80 % | 5 |
| Grain | Żytni | 1 kg (20%) | 85 % | 6 |
| Grain | Pszeniczny | 1 kg (20%) | 85 % | 4 |
| Grain | Płatki pszeniczne | 0.5 kg (10%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|---------|--------|----------|------------|
| Boil | Warrior | 10 g | 70 min | 15.5 % |
| Aroma (end of boil) | Simcoe | 10 g | 15 min | 12.6 % |
| Aroma (end of boil) | Citra | 10 g | 15 min | 13.2 % |
| Aroma (end of boil) | Simcoe | 10 g | 3 min | 12.6 % |
| Aroma (end of boil) | Citra | 10 g | 3 min | 13.2 % |
| Whirlpool | Simcoe | 10 g | 20 min | 12.6 % |
| Whirlpool | Citra | 10 g | 20 min | 13.2 % |
| Dry Hop | Simcoe | 20 g | 5 day(s) | 12.6 % |

| | | | | |
|---------|-------|------|----------|--------|
| Dry Hop | Citra | 20 g | 5 day(s) | 13.2 % |
|---------|-------|------|----------|--------|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------|------|-------|--------|------------------|
| FM52 Amerykański Sen | Ale | Slant | 150 ml | Fermentum Mobile |