

## Polish IPA

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **46**
- SRM **4**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **0 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount        | Yield | EBC |
|-------|---------------------|---------------|-------|-----|
| Grain | Strzegom Pilzneński | 5 kg (76.9%)  | 80 %  | 4   |
| Grain | Pszeniczny          | 0.5 kg (7.7%) | 85 %  | 4   |
| Grain | Rice, Flaked        | 0.5 kg (7.7%) | 70 %  | 2   |
| Sugar | cukier              | 0.5 kg (7.7%) | 95 %  | 1   |

### Hops

| Use for             | Name        | Amount | Time     | Alpha acid |
|---------------------|-------------|--------|----------|------------|
| Boil                | Marynka     | 40 g   | 60 min   | 8.8 %      |
| Aroma (end of boil) | Sybilla     | 35 g   | 20 min   | 3.5 %      |
| Aroma (end of boil) | AMORA PRETA | 25 g   | 7 min    | 9 %        |
| Whirlpool           | Książęcy    | 25 g   | 0 min    | 7 %        |
| 30 min 80°C         |             |        |          |            |
| Whirlpool           | Zula        | 25 g   | 0 min    | 8.3 %      |
| 30 min 80°C         |             |        |          |            |
| Whirlpool           | Amora Preta | 25 g   | 0 min    | 9 %        |
| 30min 80°C          |             |        |          |            |
| Dry Hop             | VERMELHO    | 50 g   | 3 day(s) | 8.1 %      |

|         |             |      |          |     |
|---------|-------------|------|----------|-----|
| Dry Hop | Książęcy    | 50 g | 3 day(s) | 7 % |
| Dry Hop | AMORA PRETA | 50 g | 3 day(s) | 9 % |

## Yeasts

| Name                            | Type | Form  | Amount | Laboratory |
|---------------------------------|------|-------|--------|------------|
| Lallemand - LalBrew Verdant IPA | Ale  | Slant | 200 ml | Lallemand  |

## Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Fining      | whirlfloc t     | 3 g    | Boil    | 10 min |
| Water Agent | gips piwowarski | 5 g    | Mash    | 0 min  |