

## Ipa apo

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **45**
- SRM **6.9**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **7 %/h**
- Boil size **22.1 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.6 liter(s) / kg**
- Mash size **21.1 liter(s)**
- Total mash volume **27 liter(s)**

### Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt  | 5 kg (85.3%)   | 80 %  | 5   |
| Grain | Strzegom Karmel 50    | 0.3 kg (5.1%)  | 75 %  | 30  |
| Grain | Pszeniczny            | 0.36 kg (6.1%) | 85 %  | 4   |
| Grain | Rahr - Red Wheat Malt | 0.2 kg (3.4%)  | 85 %  | 89  |

### Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Marynka           | 20 g   | 60 min | 10 %       |
| Aroma (end of boil) | Cascade PL        | 30 g   | 5 min  | 5.2 %      |
| Whirlpool           | Mandarina Bavaria | 25 g   | 10 min | 10 %       |
| Boil                | Magnum            | 10 g   | 60 min | 13.5 %     |

### Yeasts

| Name         | Type | Form  | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale  | Slant | 100 ml | Fermentis  |

### Extras

| Type   | Name       | Amount | Use for | Time   |
|--------|------------|--------|---------|--------|
| Fining | Whirlflock | 2.5 g  | Boil    | 15 min |