

# IPA

- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **31**
- SRM **8.9**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **80 min**
- Evaporation rate **10 %/h**
- Boil size **24.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21 liter(s)**
- Total mash volume **28 liter(s)**

## Steps

- Temp **51 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **21 liter(s)** of strike water to **56.2C**
- Add grains
- Keep mash **10 min** at **51C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount       | Yield | EBC |
|-------|---------------------|--------------|-------|-----|
| Grain | Strzegom Pilzneński | 6 kg (85.7%) | 80 %  | 4   |
| Grain | Karmelowy Czerwony  | 1 kg (14.3%) | 75 %  | 59  |

## Hops

| Use for             | Name            | Amount | Time   | Alpha acid |
|---------------------|-----------------|--------|--------|------------|
| Boil                | Hallertau Blanc | 15 g   | 80 min | 11 %       |
| Boil                | Citra           | 15 g   | 20 min | 12 %       |
| Boil                | Citra           | 15 g   | 5 min  | 12 %       |
| Aroma (end of boil) | Citra           | 30 g   | 0 min  | 12 %       |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                 |      |      |       |
|--------|-----------------|------|------|-------|
| Flavor | Trawa cytrynowa | 30 g | Boil | 5 min |
|--------|-----------------|------|------|-------|