

# takaAIPaKa

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **40**
- SRM **12.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **58 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **17.1 liter(s)** of strike water to **64.3C**
- Add grains
- Keep mash **10 min** at **58C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 4 kg (70.2%)   | 80 %  | 4   |
| Grain | Pszeniczny          | 0.5 kg (8.8%)  | 85 %  | 4   |
| Grain | Strzegom Karmel 300 | 0.5 kg (8.8%)  | 70 %  | 299 |
| Grain | Płatki owsiane      | 0.7 kg (12.3%) | 85 %  | 3   |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Aroma (end of boil) | Citra                  | 15 g   | 15 min | 12 %       |
| Aroma (end of boil) | Mosaic                 | 15 g   | 15 min | 10 %       |
| Aroma (end of boil) | Ahtanum                | 15 g   | 7 min  | 5 %        |
| Aroma (end of boil) | Citra                  | 15 g   | 7 min  | 12 %       |
| Whirlpool           | Columbus/Tomahawk/Zeus | 10 g   | 30 min | 15.5 %     |
| 80°C                |                        |        |        |            |
| Whirlpool           | Simcoe                 | 25 g   | 30 min | 13.2 %     |
| 80°C                |                        |        |        |            |

|         |                        |      |          |        |
|---------|------------------------|------|----------|--------|
| Dry Hop | Citra                  | 20 g | 5 day(s) | 12 %   |
| Dry Hop | Columbus/Tomahawk/Zeus | 20 g | 5 day(s) | 15.5 % |

### Yeasts

| Name                              | Type | Form | Amount | Laboratory |
|-----------------------------------|------|------|--------|------------|
| Mangrove Jack's M44 US West Coast | Ale  | Dry  | 11.5 g | ---        |

### Extras

| Type        | Name            | Amount | Use for | Time   |
|-------------|-----------------|--------|---------|--------|
| Water Agent | gips piwowarski | 4 g    | Mash    | 0 min  |
| Fining      | mech irlandzki  | 5 g    | Boil    | 15 min |
| Spice       | trawa cytrynowa | 10 g   | Boil    | 15 min |