

# Indiana

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **54**
- SRM **4.5**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **31.6 liter(s)**

## Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**

## Mash step by step

- Heat up **23.7 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Sparge using **15.7 liter(s)** of **76C** water or to achieve **31.5 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount          | Yield  | EBC |
|-------|---------------------------|-----------------|--------|-----|
| Grain | BESTMALZ - Bestt Pale Ale | 1.35 kg (17.1%) | 80.5 % | 6   |
| Grain | Pszeniczny                | 0.5 kg (6.3%)   | 85 %   | 4   |
| Grain | Strzegom Pilzneński       | 5 kg (63.3%)    | 80 %   | 4   |
| Grain | Płatki owsiane            | 0.8 kg (10.1%)  | 60 %   | 3   |
| Grain | Rye, Flaked               | 0.25 kg (3.2%)  | 78.3 % | 4   |

## Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Warrior  | 10 g   | 60 min | 13.5 %     |
| Aroma (end of boil) | Cascade  | 25 g   | 5 min  | 6.5 %      |
| Aroma (end of boil) | Simcoe   | 25 g   | 2 min  | 12.8 %     |
| Aroma (end of boil) | Mosaic   | 30 g   | 0 min  | 11.8 %     |
| Aroma (end of boil) | Amarillo | 50 g   | 0 min  | 10.1 %     |
| Boil                | Warrior  | 10 g   | 50 min | 13.5 %     |
| Boil                | Warrior  | 10 g   | 50 min | 13.5 %     |
| Whirlpool           | Cascade  | 25 g   | 10 min | 6 %        |
| Whirlpool           | Amarillo | 50 g   | 10 min | 9.5 %      |

|           |        |      |        |        |
|-----------|--------|------|--------|--------|
| Whirlpool | Simcoe | 25 g | 10 min | 13.2 % |
| Whirlpool | Mosaic | 20 g | 10 min | 10 %   |

## Yeasts

| Name                 | Type | Form   | Amount  | Laboratory       |
|----------------------|------|--------|---------|------------------|
| FM52 Amerykański Sen | Ale  | Liquid | 1300 ml | Fermentum Mobile |