

## ipa 3 chmiele

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- Gravity **14.3 BLG**
- ABV ---
- IBU **37**
- SRM **6.6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 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 **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **52 C**, Time **10 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount      | Yield | EBC |
|-------|---------------------|-------------|-------|-----|
| Grain | Strzegom Pilzneński | 6 kg (100%) | 80 %  | 7   |

### Hops

| Use for | Name              | Amount | Time     | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil    | magnat            | 30 g   | 60 min   | 11 %       |
| Boil    | lubelski          | 30 g   | 15 min   | 3.5 %      |
| Dry Hop | Hallertauer comet | 15 g   | 7 day(s) | 7 %        |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 11.5 g | ---        |