

## #2 Trzy chmiele #1

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **61**
- SRM **7.6**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **24 liter(s)**
- Total mash volume **32 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **0 min**

### Mash step by step

- Heat up **24 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **9.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

| Type  | Name                     | Amount       | Yield | EBC |
|-------|--------------------------|--------------|-------|-----|
| Grain | Strzegom Pale Ale        | 6 kg (75%)   | 79 %  | 6   |
| Grain | Strzegom Pszeniczny      | 1.2 kg (15%) | 81 %  | 6   |
| Grain | Karmelowy Jasny<br>30EBC | 0.8 kg (10%) | 75 %  | 30  |

### Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Amarillo | 15 g   | 60 min | 8.8 %      |
| Boil    | Cascade  | 15 g   | 60 min | 7.1 %      |
| Boil    | Citra    | 10 g   | 60 min | 13.5 %     |
| Boil    | Amarillo | 15 g   | 30 min | 8.8 %      |
| Boil    | Cascade  | 15 g   | 30 min | 7.1 %      |
| Boil    | Citra    | 5 g    | 30 min | 13.5 %     |
| Boil    | Cascade  | 10 g   | 10 min | 7.1 %      |
| Boil    | Amarillo | 5 g    | 10 min | 8.8 %      |

### Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|              |     |     |        |           |
|--------------|-----|-----|--------|-----------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |
|--------------|-----|-----|--------|-----------|