

## #16 IPA ( 4 chmiele, 4 stody )

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **48**
- SRM **6.3**
- Style **American IPA**

### Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **5 %**
- Size with trub loss **52.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **63.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **42 liter(s)**
- Total mash volume **54 liter(s)**

### Steps

- Temp **55 C**, Time **30 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **42 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **30 min** at **55C**
- Keep mash **45 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **33.3 liter(s)** of **76C** water or to achieve **63.3 liter(s)** of wort

### Fermentables

| Type  | Name                 | Amount       | Yield | EBC |
|-------|----------------------|--------------|-------|-----|
| Grain | Viking Pale Ale malt | 5 kg (41.7%) | 80 %  | 5   |
| Grain | Strzegom Wiedeński   | 5 kg (41.7%) | 79 %  | 10  |
| Grain | Strzegom Pszeniczny  | 1 kg (8.3%)  | 81 %  | 6   |
| Grain | Strzegom Karmel 50   | 1 kg (8.3%)  | 75 %  | 50  |

### Hops

| Use for             | Name       | Amount | Time   | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil                | lunga      | 30 g   | 60 min | 11 %       |
| Boil                | Chinook    | 25 g   | 50 min | 10 %       |
| Mash                | lunga      | 20 g   | 30 min | 11 %       |
| Boil                | Chinook    | 25 g   | 30 min | 10 %       |
| Boil                | Cascade PL | 30 g   | 20 min | 5.2 %      |
| Boil                | Lomik      | 25 g   | 38 min | 3.8 %      |
| Boil                | Cascade PL | 30 g   | 10 min | 5.2 %      |
| Boil                | Lomik      | 48 g   | 10 min | 3.8 %      |
| Aroma (end of boil) | Cascade PL | 60 g   | 0 min  | 5.2 %      |

|         |            |       |          |       |
|---------|------------|-------|----------|-------|
| Dry Hop | Cascade PL | 100 g | 7 day(s) | 5.2 % |
|---------|------------|-------|----------|-------|

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 23 g   | Fermentis  |

## Notes

- 20:48 - Rozpoczęcie filtracji (spuszczanie z wiadra do garnka 70L)  
*Jun 15, 2019, 10:37 PM*
- 22:18 - zakończenie filtracji. Brzeczka nastawiona na palnik.  
*Jun 15, 2019, 10:37 PM*
- 2:34 - blg końcowe 12,5 ~ 13.  
*Jun 16, 2019, 2:55 AM*
- Fermentacja dzień 1 temp. ok 22'C  
Fermentacja po pierwszym dniu w piwnicy temp 17.5'C  
*Jun 18, 2019, 1:38 AM*
- 26 czerwca zlanie na cichą i dodanie 100g chmielu w temp 20'C. Tego dnia pomiar refraktometrem wynosi 6, co po korekcie gęstości "KOREKTA WSKAZANIA REFRAKTOMETRU" wynosi 1.5blg czyli ABV 6.2% odfermentowanie 89.0%.  
*Jun 27, 2019, 12:27 PM*
- Chmielenie na cicho 4 dni w temp ok 20 - 23'C  
Mycie + dezynfekcja butelek ok. 3h.  
Rozlew w butelki ok 1.5h.  
*Jun 29, 2019, 10:20 PM*