

Atak Chmielu

- Gravity **15 BLG**
- ABV **6.2 %**
- IBU **30**
- SRM **13**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **1.8 liter(s)**
- Total mash volume **2.4 liter(s)**

Steps

- Temp **70 C**, Time **30 min**

Mash step by step

- Heat up **1.8 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **30 min** at **70C**
- Sparge using **24.3 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|-----------------------------|----------------|-------|-----|
| Liquid Extract | Bruntal Pale Ale | 3.4 kg (70.8%) | 80 % | 35 |
| Dry Extract | Browamator jasny | 0.8 kg (16.7%) | 74 % | 35 |
| Grain | Weyermann - Carapils | 0.2 kg (4.2%) | 74 % | 4 |
| Grain | Weyermann - Carared | 0.2 kg (4.2%) | 70 % | 45 |
| Grain | Weyermann - Melanoiden Malt | 0.2 kg (4.2%) | 70 % | 53 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil | Simcoe | 20 g | 45 min | 11.1 % |
| Boil | Simcoe | 10 g | 15 min | 11.1 % |
| Boil | Amarillo | 10 g | 15 min | 9.7 % |
| Aroma (end of boil) | Simcoe | 20 g | 0 min | 11.1 % |
| Aroma (end of boil) | Amarillo | 10 g | 0 min | 9.7 % |
| Aroma (end of boil) | Cascade | 10 g | 0 min | 6.8 % |
| Aroma (end of boil) | Citra | 20 g | 0 min | 12 % |
| Dry Hop | Simcoe | 40 g | 3 day(s) | 11.1 % |
| Dry Hop | Citra | 10 g | 3 day(s) | 12 % |

| | | | | |
|---------|----------|------|----------|-------|
| Dry Hop | Amarillo | 10 g | 3 day(s) | 9.7 % |
| Dry Hop | Cascade | 20 g | 3 day(s) | 6.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11.5 g | Fermentis |