

#6 Black Ninja

- Gravity **17.2 BLG**
- ABV ---
- IBU **58**
- SRM **40**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **2.4 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **23.5 liter(s)**

Steps

- Temp **64 C**, Time **40 min**
- Temp **70 C**, Time **20 min**
- Temp **75 C**, Time **5 min**

Mash step by step

- Heat up **16.6 liter(s)** of strike water to **73.1C**
- Add grains
- Keep mash **40 min** at **64C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **75C**
- Sparge using **17.9 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale | 5.5 kg (79.7%) | 85 % | 0 |
| Grain | Biscuit Malt | 0.2 kg (2.9%) | 79 % | 45 |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (7.2%) | 68 % | 1200 |
| Grain | Strzegom Karmel 30 | 0.7 kg (10.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------------|--------|----------|------------|
| Boil | Vic Secret (AUS) | 20 g | 60 min | 16.1 % |
| Boil | Green Bullet | 20 g | 45 min | 11 % |
| Aroma (end of boil) | Simcoe | 15 g | 5 min | 13 % |
| Aroma (end of boil) | Citra | 15 g | 5 min | 12 % |
| Dry Hop | Simcoe | 15 g | 8 day(s) | 13 % |
| Dry Hop | Citra | 15 g | 8 day(s) | 12 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------|
| US-5 | Ale | Slant | 100 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|-----------------|--------|----------|--------|
| Water Agent | Gips piwowarski | 4 g | Mash | 60 min |
| Other | Cukier | 150 g | Bottling | --- |