

black mirror

- Gravity **17.5 BLG**
- ABV **7.5 %**
- IBU **50**
- SRM **42.3**
- Style **Black IPA**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **29.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.1 liter(s) / kg**
- Mash size **24.8 liter(s)**
- Total mash volume **32.8 liter(s)**

Steps

- Temp **68 C**, Time **90 min**
- Temp **78 C**, Time **1 min**

Mash step by step

- Heat up **24.8 liter(s)** of strike water to **75.7C**
- Add grains
- Keep mash **90 min** at **68C**
- Keep mash **1 min** at **78C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|-----------------|-------|------|
| Grain | Pale Ale | 4.03 kg (50.4%) | 80 % | 7 |
| Grain | Żytni | 0.8 kg (10%) | 85 % | 8 |
| Grain | Płatki owsiane | 0.8 kg (10%) | 85 % | 3 |
| Grain | Strzegom pszenica prażona | 0.3 kg (3.8%) | 70 % | 50 |
| Grain | Strzegom Czekoladowy ciemny | 0.4 kg (5%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.4 kg (5%) | 55 % | 985 |
| Grain | Weyermann Caramunich 3 | 0.8 kg (10%) | 76 % | 150 |
| Grain | Pszoniczny | 0.46 kg (5.8%) | 85 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|----------|--------|----------|------------|
| Boil | Galena | 42 g | 60 min | 14 % |
| Boil | CASHMERE | 50 g | 1 min | 8.8 % |
| Dry Hop | CASHMERE | 50 g | 3 day(s) | 8.8 % |

Yeasts

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

| | | | | |
|---------------------|-----|-------|--------|-----|
| Wyeast - London Ale | Ale | Slant | 230 ml | --- |
|---------------------|-----|-------|--------|-----|

Extras

| Type | Name | Amount | Use for | Time |
|------|---------------|--------|-----------|----------|
| Herb | liscie cafiru | 8 g | Secondary | 7 day(s) |