

PAN TU NIE STOUT

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **78**
- SRM **29**
- Style **American Stout**

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 **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **22.4 liter(s)**

Steps

- Temp **67 C**, Time **60 min**

Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|---------------|-------|------|
| Grain | Strzegom Pale Ale | 5 kg (89.3%) | 79 % | 6 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.6%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.2 kg (3.6%) | 55 % | 985 |
| Grain | Caraaroma | 0.2 kg (3.6%) | 78 % | 400 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------------------|--------|----------|------------|
| Boil | Marynka | 50 g | 60 min | 10 % |
| Boil | Magnum | 7 g | 60 min | 13.5 % |
| Boil | Lublin (Lubelski) | 20 g | 60 min | 4 % |
| Boil | Centennial | 30 g | 5 min | 10.5 % |
| Dry Hop | Centennial | 20 g | 7 day(s) | 10.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|------|--------|------------|
| US-05 | Ale | Dry | 11 g | --- |