

PC-3410, PC-3411 / PH-3911-1

Casting Resin

Two component polyurea system

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Page 1 / 2

Key Properties

- Hand cast
- Low moisture sensitivity
- Long pot life
- High elongation at break
- Components are nontoxic

Applications

- Structural molds
- Plaster working molds for the ceramics industry
- Concrete molds
- Vibration absorption
- Holding fixtures / jigs
- Impact protection parts

Processing Properties

		Unit	PC-3410	PC-3411	PH-3911-1
Color	visual		black	black	yellowish
Mix ratio	-	pbw	100	-	300
Mix ratio	-	pbw	-	100	1000
Mix ratio	-	pbv	100	-	308
Mix ratio	-	pbv	-	100	1130
Density	DIN 2811-1	g/cm³	ca. 1.09	ca. 1.20	ca. 1.06
Viscosity at 25 °C	DIN 53019-1	mPa·s	1,300 - 1,800	500 - 600	3,500 - 4,500

		Unit	PC-3410 / PH-3911-1	PC-3411 / PH-3911-1
Mix viscosity at 25 °C	DIN 53019-1	mPa·s	3,800 - 4,300	5,000 - 5,500
Pot life at 25 °C	1000 ml	min	45 - 50	30 - 35
Max. layer thickness		mm	50	50
Demold time		h	24	24

Cured / Mechanical Properties

		Unit	PC-3410 / PH-3911-1 7 days at RT	PC-3411 / PH-3911-1 7 days at RT
Cure				
Color		visual	black	black
Density	ISO 1183	g/cm³	ca. 1.10	ca. 1.10
Hardness	ISO 868	Shore A	40 - 45	80 - 85
Tensile strength	ISO 527	MPa	1 - 3	8 - 13
Elongation at break	ISO 527	%	600 - 650	680 - 730
Tear strength	DIN 53515		13 - 18	35 - 40
Abrasion	Taber	mm³/100R	3 - 6	7 - 11



Processing

The processing temperature and material temperature should be between 20-25°C.

PC-3410 can be mixed with PC-3411 to obtain a shore hardness between A40 and A85.

The A component needs to be stirred well before use as some fillers might be prone to sedimentation.

Mix the two components thoroughly in the ratio indicated.

Degassing and / or post curing will improve final properties.

Packaging

RAKU® TOOL PC-3410	5 kg
RAKU® TOOL PC-3411	2,0 kg
RAKU® TOOL PH-3911-1	20 kg, 5 kg

Storage

Original containers should be kept tightly sealed and stored at ambient temperatures (15°C to 30°C). If properly stored the products have the shelf-life indicated on the product label. Partly used containers should always be sealed appropriately and used up as soon as possible.

Handling precautions

Good workplace ventilation is to be ensured during processing. At the same time, the employer's liability insurance association's industrial hygiene safety regulations regarding the handling of reaction resins and their hardeners are to be observed. Please take heed of the appropriate safety data sheets.