# Secure mounting of exterior attachment parts with tesa® ACX<sup>plus</sup> Primerless 79011

tesa® ACX<sup>plus</sup>: Primerless acrylic foam tapes for bonding exterior parts







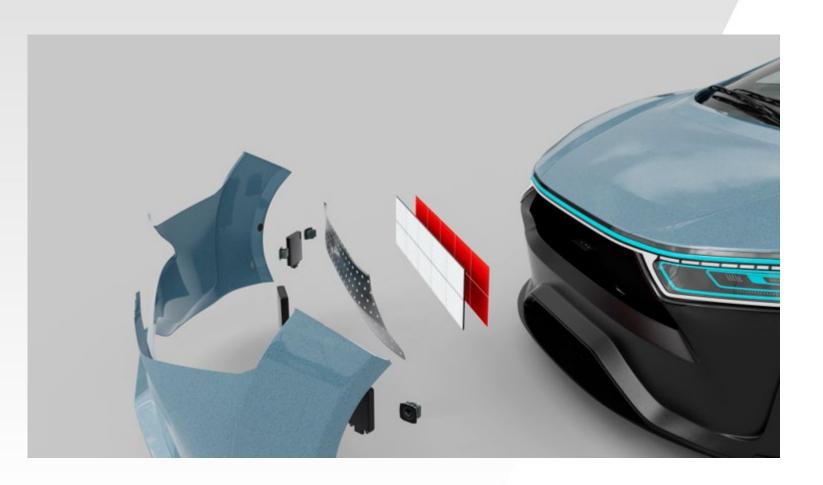
# The revolution of plastic used in cars

Approximately 50% (around 100 kg) of the plastics used in a car are polypropylene (PP) based. The requirements for these materials are becoming increasingly demanding, with a growing emphasis on the use of recycled materials and various fillers.

Thus make the bonding on PP based substrate more difficult without primer.

# The trend of exterior design





- Mounted attachment parts are becoming larger, resulting in higher stress in the bonding areas.
- Additionally, clear coats are becoming more demanding for adhesives, and the variety is continuously increasing. Design freedom remains an essential key factor.

# The challenge from environment





Temperature ranges are becoming more extreme, requiring parts to perform reliably in both very cold and very hot environments.

Tapes must meet these stringent requirements over the entire lifetime of a car without losing performance.





- Design freedom for bonding various materials.
- Approximately 80% of part costs are determined during the product design phase.
- Sufficient tape performance prevent extra time and cost of evaluation once design is fixed.





- Reliable and secure supply chain for highperformance products on various substrates.
- Special pre-treatment eg: primer is needed for bonding on the LSE PP/EPDM material.
- Automation-friendly, including spools, tabbing tapes, and suitable liners.





- Reliable bonding immediately after application, eliminating reworking in production.
- Strong bonding and smooth process on clear coats even for the big and heavy parts.
- Adhesives working on various clear coats.





- High Durability: Withstands extreme temperatures and humidity throughout the vehicle's lifecycle.
- Expertise: tesa meets all global OEM specifications.
- Proven Performance: tesa products are reliable for over a decade.

Market trends require new tapes: Primerless and Beyond

OEMs and OES are seeking a tape that provides design flexibility for large attachment parts made of all kinds of PP EPDM without pre-treatment, while ensuring reliable high performance, without compromising competitiveness.

tesa developed the new range for mounting large PP-EPDM parts on various clear coats, tesa® ACXplus Primerless 79011.



# Key features:





Secure design freedom with **high compatibility on various clear coats** applied by main OEMs



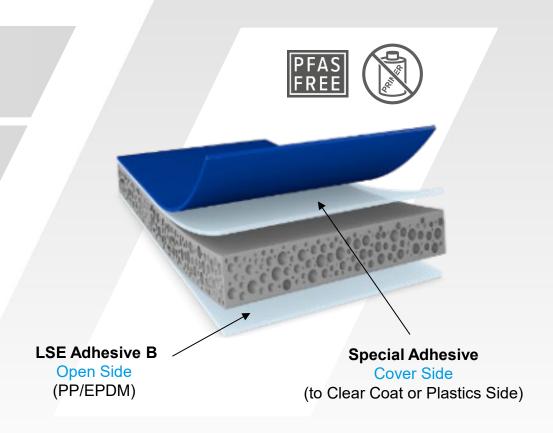
Specially designed for **high temperature resistance** to meet more and more challenging OEM requirements



Fast and strong bonding performance ensure efficient OEM assembly workshop procedure



Durability under **low temperature** with stable performance



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# Brand new tesa® ACXplus Primerless 79011



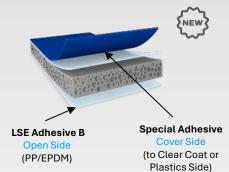


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# Product introduction: tesa® ACXplus Primerless 79011 Line







Clear coat or plastic
PP EPDM plastic Part

	tesa <sup>®</sup> ACX <sup>plus</sup> Primerless 79011		
Adhesive / Backing	3 layers; Pure Acrylic foam core with new LSE and special adhesives		
Thickness	1.1 mm and (0.8mm/1.5mm coming soon)		
Color	Gray		
Temperature Range (LT)	-40 to +95°C		
Liner	PV15 blue PE liner PV19 blue co-ex liner (coming soon)		
PI / TI Sheets			

#### High Temperature (95°C)

Static shear resistance



# High initial bonding strength even on demanding clear coat

ven on demanding clear coat & LSE plastic



#### High bonding strength on diverse materials (PP/EPDM, Clear coat)





Acrylic foam tape can pass multiple OEM Specs (more under testing)







#### **Environmental contributor**

No Primer for OES Plastic parts & PFAS Free

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Stable performance under low temperature





Launch presentation - tesa® ACXplus Primerless 79011

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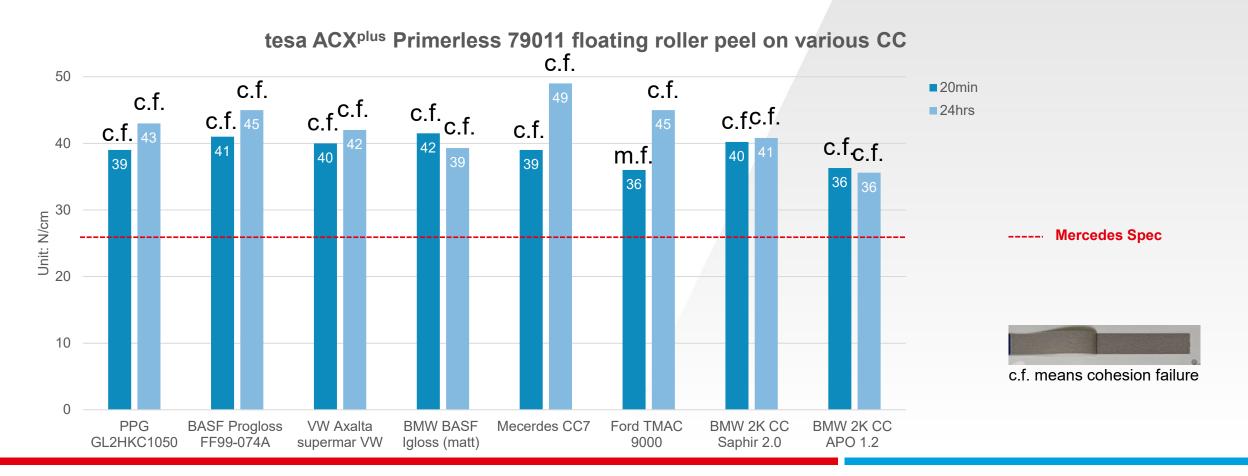
tesa

# High compatibility on various clear coats



#### tesa® ACX<sup>plus</sup> Primerless 79011 offers high bonding strength on mainstream clear coats widely used by OEMs

- tesa® ACX<sup>plus</sup> Primerless 79011 meet the requirement of DBL 7906-2018 on a wider range of clear coat panel
- tesa® ACX<sup>plus</sup> Primerless 79011 shows cohesion failure only after 20mins dewelling time on various clear coats





# High temperature resistance



#### tesa® ACX<sup>plus</sup> Primerless 79011 offers high temperature resistance to meet more and more challenging OEM requirements

- tesa® ACX<sup>plus</sup> Primerless 79011 can pass one of the most critical OEM specifications regarding to high temperature on the market, Mercedes DBL 7906 - 2018
- tesa® ACX<sup>plus</sup> Primerless 79011 hold strong even after 168hrs with extra harsh condition exceeding the OEM requirement, test up to 95 °C



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# High temperature resistance



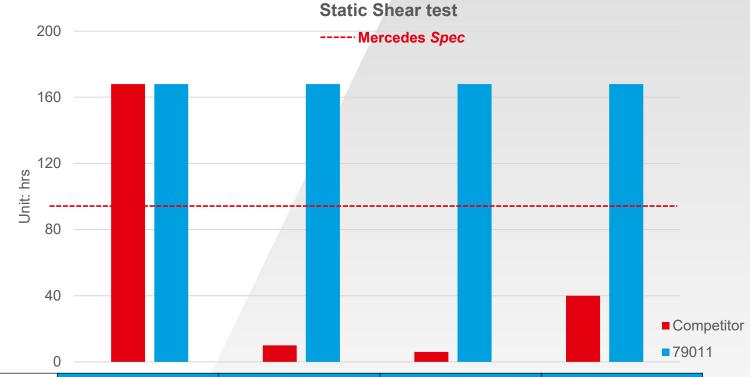


tesa® ACX<sup>plus</sup> Primerless 79011 exceeds DBL 7906-2018 requirement:

Shorter dwelling time → Faster process, from 72hrs to 20mins

Higher loading → Heavy hanging, from 250g/cm2 to 350g/cm2

Higher temperature → Environment compatibility, from 90°C to 95°C



	DBL 7906	Short dwell	Higher loading	Higher temperature
Loading	250g	250g	350g	250g
Test temperature	90°C	90°C	90°C	95°C
Dwelling time	72hrs	20mins	72hrs	72hrs

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Outstanding Primerless, PFAS Free solution in the Market







Fast and strong bonding performance ensure efficient OEM workshop assembly procedure

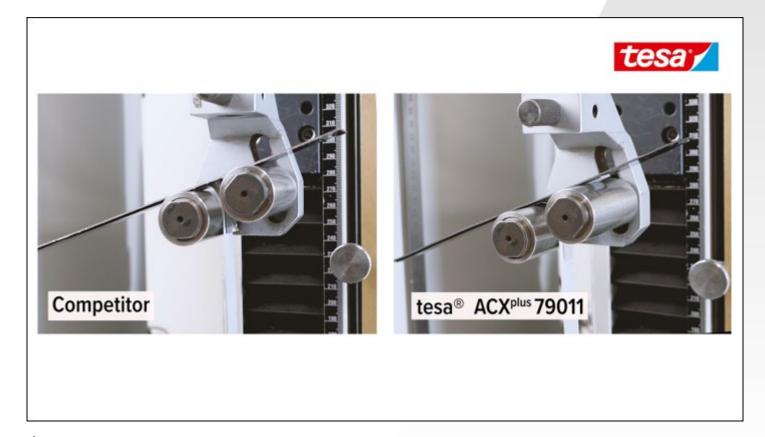


# Fast and strong bonding



#### tesa® ACX<sup>plus</sup> Primerless 79011 offers fast and strong bonding to ensure efficient OEM workshop assembly procedure

- tesa® ACX<sup>plus</sup> Primerless 79011 has high initial bonding performance, achieve 90% of final bonding performance within 20 mins
- tesa® ACX<sup>plus</sup> Primerless 79011 has high final bonding strength on PP/EPDM and clear coat



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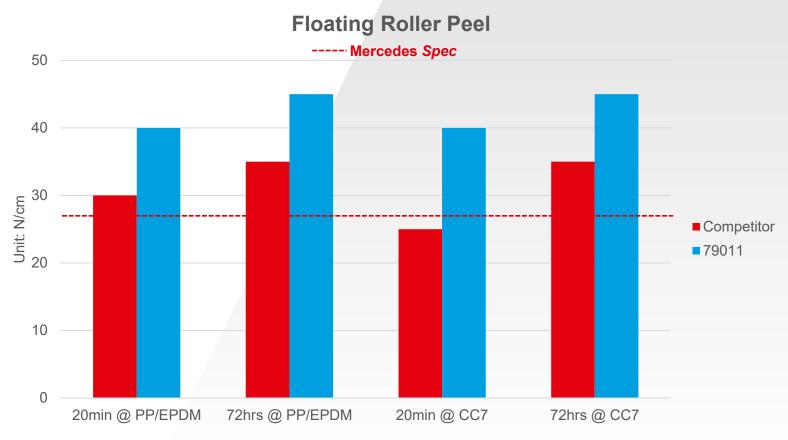
# Fast and strong bonding



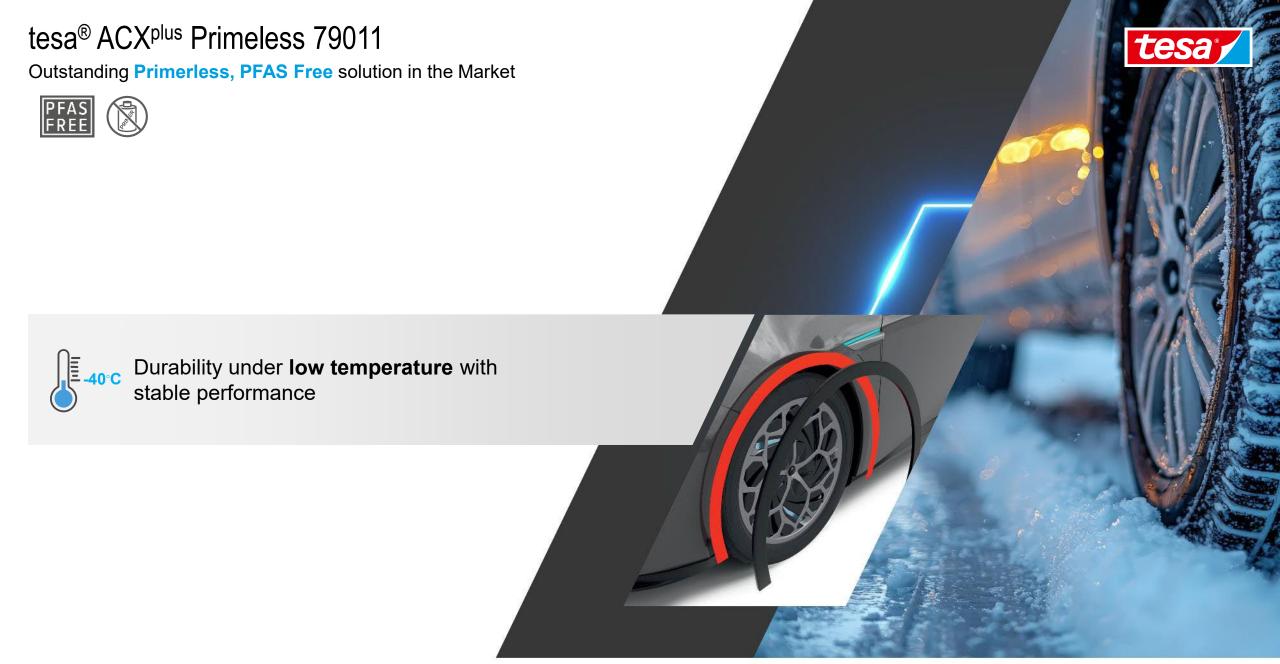


tesa® ACX<sup>plus</sup> Primerless 79011 offers high initial bonding performance.

tesa® ACX<sup>plus</sup> Primerless 79011's peel adhesion can fulfill the Mercedes Spec DBL 7906-2018 PV12 and other major OEMs'.



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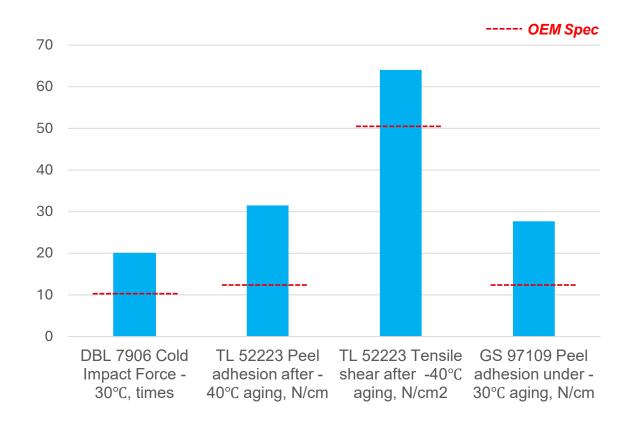
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# Low temperature



#### tesa® ACX<sup>plus</sup> Primerless 79011 offers excellent low temperature performance

- tesa® ACX<sup>plus</sup> Primerless 79011 survive more than 20 times of cold shock -30 °C according to DBL 7906-2018
- tesa® ACX<sup>plus</sup> Primeless 79011 pass VW TL52223 low temperature test after -40 °C aging





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# Assortement overview



### **Complete Assortment**

#### **Diverse Product Range**

Comprehensive selection to meet varying requirements

High-quality products across different categories

#### Reliable and Efficient

Products designed for durability and efficiency

Trusted by Automotive industry over one decade



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# tesa® ACXplus assortment for attachment part mounting



DEAC	Part type	Small (e.g. emblems)	all (e.g. emblems) Mid to large (pre treatment LSE)		Mi	Mid to large	
FREE	Product	tesa® 772XX	tesa® 78XX	tesa® 776XX	tesa® 777XX	tesa® 778XX	tesa® 790XX (NEW)
					Primerless	Primerless	Primerless
Construction	1					The same of the sa	
		Sing	ıle layer	Two layers	Two layers	Thre	e layers
Color		Gray	Black	Gray	Gray	Gray	Gray
Backing		Acrylic foam	Tackified acrylic foam	Acrylic foam	Acrylic foam	Acrylic foam	Tackified acrylic foam
Adhesive	Closed side		-	LSE A	-	LSE A	CC 2
Adilesive	Open side	-	-	-	LSE A	LSE A	LSE B
	High cohesion		•				
Special	High temperature resistance						•
features	Demanding clear coat bonding		•	•		•	•
	LSE bonding				•	•	•
	0.4 mm	77204					
	0.5 mm		7805			77805	
	0.6 mm	77206					
	0.8 mm	77208	7808	77608	77708	77808	79008
Thickness	1.0 mm	77210					
	1.1 mm		7811	77611	77711	77811	79011
	1.2 mm	77212	7812				
	1.5 mm		7815	77615	77715	77815	79015
	1.6 mm	77216 (NEW)					
	2.0 mm	77220 (NEW)	7820				

# tesa® ACXplus assortment for attachment part mounting



Part type	Small (e.g. emblems)	Mid to large (pre treatment LSE)		Mid to large		Large & more demanding
Product	tesa® 772XX	tesa® 78XX	tesa® 776XX	tesa® 777XX	tesa® 778XX	tesa® 790XX (NEW)
				Primerless	Primerless	Primerless
	Sin	gle layer	Two layers	Two layers	Three	alayers
Long (3 months)	80°C / - 40°C	80°C	80°C	80°C	80°C	95°C
Short (15 min)	120°C / - 40°C	120°C	120°C	120°C	120°C	120°C
Clear coat / paint (covered side (1,100 µm))	31 N/cm	28 N/cm	36 N/cm	32 N/cm	39 N/cm	40 N/cm
LSE (e.g. PP EPDM) w/o pre treatment (1,100 µm)	-	-	-	40 N/cm	40 N/cm	40 N/cm
MSE (e.g. ABS) w/o pre treatment (1,100 µm)	-	35 N/cm	-	36 N/cm	31 N/cm	40 N/cm
Paper	PV04	PV25	-	-	-	-
PE	PV31 / 34 (white)	PV29 (blue)	PV15 (blue)	PV15 (blue)	PV15 (blue)	PV15 / PV19 (coming soon)
PET	PV36 (translucent)	-	-	-	-	
	Product  Long (3 months)  Short (15 min)  Clear coat / paint (covered side (1,100 μm))  LSE (e.g. PP EPDM) w/o pre treatment (1,100 μm)  MSE (e.g. ABS) w/o pre treatment (1,100 μm)  Paper  PE	Product   tesa® 772XX	Product         tesa® 772XX         tesa® 78XX           Single layer           Long (3 months)         80°C / - 40°C         80°C           Short (15 min)         120°C / - 40°C         120°C           Clear coat / paint (covered side (1,100 μm))         31 N/cm         28 N/cm           LSE (e.g. PP EPDM) w/o pre treatment (1,100 μm)         -         -           MSE (e.g. ABS) w/o pre treatment (1,100 μm)         -         35 N/cm           Paper         PV04         PV25           PE         PV31 / 34 (white)         PV29 (blue)	Product         tesa® 772XX         tesa® 78XX         tesa® 776XX           Single layer         Two layers           Long (3 months)         80°C / -40°C         80°C         80°C           Short (15 min)         120°C / -40°C         120°C         120°C           Clear coat / paint (covered side (1,100 μm))         31 N/cm         28 N/cm         36 N/cm           LSE (e.g. PP EPDM) w/o pre treatment (1,100 μm)         -         -         -           MSE (e.g. ABS) w/o pre treatment (1,100 μm)         -         35 N/cm         -           Paper         PV04         PV25         -           PE         PV31 / 34 (white)         PV29 (blue)         PV15 (blue)	Product         tesa® 772XX         tesa® 777XX         tesa® 777XX         tesa® 777XX         primerless           Single layer         Two layers         Two layers         Two layers           Long (3 months)         80°C / -40°C         80°C         80°C         80°C           Short (15 min)         120°C / -40°C         120°C         120°C         120°C           Clear coat / paint (covered side (1,100 μm))         31 N/cm         28 N/cm         36 N/cm         32 N/cm           LSE (e.g. PP EPDM) w/o pre treatment (1,100 μm)         -         -         40 N/cm           MSE (e.g. ABS) w/o pre treatment (1,100 μm)         -         35 N/cm         -         36 N/cm           Paper         PV04         PV25         -         -           PE         PV31 / 34 (white)         PV29 (blue)         PV15 (blue)         PV15 (blue)	Product         tesa® 772XX         tesa® 78XX         tesa® 776XX         Primerless         Primerless           Long (3 months)         80°C / - 40°C         80°C         80°C         80°C         80°C         80°C         80°C         80°C         80°C         120°C         120°C

# Application process support

#### **Dedicated application support for your needs**

We sell not only adhesive tape but whole application solutions. This is why we support our focus customers with a dedicated team of key account managers and technical experts to ensure all aspects of the project are covered.

Our global customer solution centres provide extensive testing facilities to find the right adhesive tape for your needs.



# tesa® ACX<sup>plus</sup> technical support for automation



Our Customer Solution Center, Application Solution Engineers and Application Process Engineering team in Europe, Asia and America support you to choose the right tape and enable an efficient production.



Pressure roller to ensure sufficient pressure

Precise applicator for wheel arch extension

Precise die-cut applicator for shark fin antenna

# tesa® ACX<sup>plus</sup> technical support for automation



Also for semi-automatic and automatic application, our engineering team offers support for the smooth process integration.



Launch presentation - tesa® ACXplus Primerless 79011

with primer function

# Extensive product testing capacities at tesa



#### Our Customer Solution Center (CSC) has Comprehensive Testing Capabilities

- According to all major OEM specifications
- Testing on customer susbtrates and new plastic materials



Comprehensive Material and application test capabilities

Substrate surface analysis and treatment

Bonding performance on recycled materials

# tesa® ACXplus available formats



#### **Tailormade to Customers' Needs**

- Spool format even in very narrow widths and length up to 1.800m
- Log rolls in different formats for efficient processing
- Die cuts supplied by tesa converting partners all over the world
- Pancake rolls for manual or semi-automated processes



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