

ATR CHEMICALS SA



Company Profile





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ATR Chemicals SA is founded in 1898 by Mr. Angelo Tacconi in Milano, Italy. In 1959, Dr. Paolo Crivelli has moved the factory from Milano to Cologno Monzese. In 1997, Dr. Crivelli again moved the factory from Cologno Monzese to Balerna, Switzerland with new equipment.

In 2004, ATR Chemicals SA joined to ORGANIK KIMYA GROUP in Turkey.

The Italian company originally manufactured auxiliary products for the textile and tanning industries.

During and since the 1970's, the company has focused its efforts on developing and producing adhesives for printing surfaces.

Its close collaboration with clients, intense research program and meticulous selection of suppliers enable ATR to offer a high standard of quality products.

Production

Synthesis of different acrylic and vinyl copolymers present in its adhesives product range is ATR's core business.

The peculiar physicochemical and physiomechanical properties of the polymers are responsible for the high wear resistance of the ATR's adhesive products.

Customers all over the world appreciate these characteristics.



Quality

Raw materials analysis and systematic control of each batch produced enables constant maintenance of product quality according to present standards and, on request, the subsequent release of a certificate of quality.

Beyond the usual and conventional parameters such as viscosity, solid content and specific weight, ATR controls each batch produced for specific properties such as tack, drying time and flow.

Products

Main Products

Permanent , Thermosensitive and Thermoplastic Adhesives, Levelling Resins, Sprays for Piece Printing, Detergent and Reviving Agents, Stripping Agents

Special Products for Ink-Jet Printing

Thermoplastic and Permanent Adhesives, Levelling Resin, Harmless Detergent and Reviving Agent , Harmless and Not Flammable Stripping Agent

Pressure Sensitive Adhesives



ATR	Product Name	Packing
1201	Atramin Super	20/50 kg Net Steel Drums(1A1)
1499	Adesivo 499	20/50 kg Net Steel Drums(1A1)
1642	Adesivo 642	20/50 kg Net Steel Drums(1A1)
1578	Atramin WS 578	20/50 kg Net Steel Drums(1A1)
1580	Atramin SK	20/50 kg Net Steel Drums(1A1)
1566	Atramin GO	20/50 kg Net Steel Drums(1A1)
1597	Atrasol T	20/50 kg Net Steel Drums(1A1)
1599	Atrasol X	20/50 kg Net Steel Drums(1A1)
1600	Atrasol Y	20/50 kg Net Steel Drums(1A1)
1717	Atrasol GP 1	20/50 kg Net Steel Drums(1A1)
1720	Atrasol NB	20/50 kg Net Steel Drums(1A1)
1722	Atrasol R 25	20/50 kg Net Steel Drums(1A1)
1801	Atrasol TT	20/50 kg Net Steel Drums(1A1)
1731	Atrasol OG	20/50 kg Net Steel Drums(1A1)
1353	Resina MC	20/50 kg Net Steel Drums(1A1)
2720P	Primer ATR	20/50 kg Net Steel Drums(1A1)
1945	Atrafix ML/T	4/20/50 Kg Net Steel Drums(1A1)
1946	Atrafix ML/S	4/20/50 Kg Net Steel Drums(1A1)
1947	Atrafix ML/K	4/20/50 Kg Net Steel Drums(1A1)
1948	Unilevel ML	4/20/50 Kg Net Steel Drums(1A1)
1222	Idrosolveol	20/50 kg Net Steel Drums(1A1)
1336	Remover NLP	25 kg Net Plastic Drums(3H1)
1158	Remover NLP-E	25 kg Net Plastic Drums(3H1)
1949	Atraclean ML	25 kg Net Plastic Drums(3H1)
1950	Adhesolv ML	25 kg Net Plastic Drums(3H1)
3322	Adhesolv	25 kg Net Plastic Drums(3H1)



MAIN PRODUCTS							
PERMANENT ADHESIVES							
ATR	PRODUCT NAME	VISCOSITY(ops)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1201	ATRAMIN SUPER	1100	18	Good	Very Good	Soft	Table and flat bed machines
1499	ADESIVO 499	1500	18	Very High	Low	Soft	Table and flat bed machines
1586	ATRAMIN GO	950	22	Very High	Good	Hard	Flat bed machines
1678	ATRAMIN WS 578	300	18	Good	Very Good	Hard	Table and flat bed machines
1580	ATRAMIN SK	700	21	Very High	Good	Hard	Flat bed machines
1642	ADESIVO 642	2100	21	Very High	Low	Soft	Table and flat bed machines
THERMOSENSITIVE ADHESIVES							
ATR	PRODUCT NAME	VISCOSITY(ops)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1600	ATRASOL Y	900	21	>25 C	Very Good	Hard	Flat bed machines
1597	ATRASOL T	1000	18	>15 C	Very Good	Soft	Flat bed machines
1599	ATRASOL X	750	18	>20 C	Very Good	Hard	Table and flat bed machines
THERMOPLASTIC ADHESIVES							
ATR	PRODUCT NAME	VISCOSITY(ops)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1717	ATRASOL GP 1	1500	21	>30 C	Very Good	Soft	Rotary screen and flat bed machines
2717	ATRASOL GP 1	2500	21	>30 C	Very Good	Soft	Rotary screen and flat bed machines
1720	ATRASOL NB	500	19	>40 C	Very Good	Very Hard	Rotary screen and flat bed machines
1722	ATRASOL R25	1500	25	>35 C	Very Good	Hard	Rotary screen and flat bed machines
1731	ATRASOL OG	3500	30	>45 C	Very Good	Hard	Rotary screen and flat bed machines
1801	ATRASOL TT	5000	29	>40 C	Very Good	Hard	Rotary screen and flat bed machines
LEVELLING RESINS							
ATR	PRODUCT NAME	VISCOSITY(ops)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1353	RESINAMC	440	22	No	Very Good	Very Hard	Rotary screen and flat bed machines
2353	RESINAMC	1400	22	No	Very Good	Very Hard	Rotary screen and flat bed machines
2720 P	PRIMER	600	19	No	Very Good	Soft	Rotary screen and flat bed machines
SPRAYS for PIECE PRINTING							
ATR	PRODUCT NAME	VISCOSITY(ops)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
3152	ATRAMIN SPRAY	-	-	Good	Very Good	Hard	Carousel printing machines
3152-D6	ATRAMIN SPRAY	-	-	Good	Very Good	Soft	Carousel printing machines
DETERGENT AND REVIEVING AGENTS							
ATR	PRODUCT NAME	SPECIFIC WEIGHT(g/cm)	CONCENTRATION(%)		WAY of ACTING		
1158	REMOVER NLP-E	0,98	39		NF***		
1336	REMOVER NLP	0,96	78		NF***		
1949	ATRACLEAN ML	0,99	78		NF***-Ecological		
STRIPPING AGENTS							
ATR	PRODUCT NAME	SPECIFIC WEIGHT(g/cm)	CONCENTRATION(%)		WAY of ACTING		
1222	IDROSOLVEOL	0,89	100		F****		
3322	ADHESOL	0,87	70		NF***-Ecological		



SPECIAL PRODUCTS for INK-JET PRINTING							
PERMANENT ADHESIVES							
ATR	PRODUCT NAME	VISCOSITY(cps)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1946	ATRAFIX ML/S	1450	21	High	Good	Soft	F****
1947	ATRAFIX ML/K	1000	22	Very High	Very Good	Hard	
THERMOPLASTIC ADHESIVE							
ATR	PRODUCT NAME	VISCOSITY(cps)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1945	ATRAFIX ML/T	1000	23	>30 C	Very Good	Hard	F****
LEVELLING RESIN							
ATR	PRODUCT NAME	VISCOSITY(cps)	SOLID CONTENTS(%)	TACK*	ADHESION**	FILM HARDNESS	WAY of ACTING
1948	UNILEVEL ML	600	22	No	Very Good	Very Hard	F****
HARMLESS DETERGENT and REVIVING AGENT							
ATR	PRODUCT NAME	SPECIFIC WEIGHT(g/cm ³)		CONCENTRATION(%)		DANGER SYMBOL	
1949	ATRACLEAN ML	0,99		78		None	
HARMLESS and NOT FLAMMABLE STRIPPING AGENT							
ATR	PRODUCT NAME	SPECIFIC WEIGHT(g/cm ³)		CONCENTRATION(%)		WAY of ACTING	
1950	ADHESOLV ML	0,9		100		None	

PRESSURE SENSITIVE ADHESIVES							
ATR	PRODUCT NAME	VISCOSITY (cps)	SOLID CONTENTS(%)	DENSITY(g/ml)	PEEL(20 min,STEEL)	PEEL(24 H,STEEL)	SHEAR(1" x 1", 1Kg , 20°C)
5001	PSA 505	5500-9000	48-50	0,9	11 N / 25 mm	14 N / 25 mm	>100 HOURS
5002	PSA 405	2500-7000	50-55	0,9	2,5 N / 25 mm	3 N / 25 mm	>100 HOURS
5003	PSA 305	3000-6500	39-43	0,9	Performance can be changed with addition of different quantity of isocyanate crosslinker		

*	Tack, is the strength between adhesive film and fabric.
**	Adhesion, is the strength between adhesive film and printing blanket
***	NF means, non flammable
****	F means, flammable

Recommendations for High Quality Printing with ATR Products

Since there is much more parameters for evaluation, this chapter is prepared to give a better understanding of the range of products.

Our experience in the ' Textile Printing ' has enabled us to develop a range of adhesives capable of producing almost instantaneous « sticking » by simple contact, by application of slight pressure or by heating.

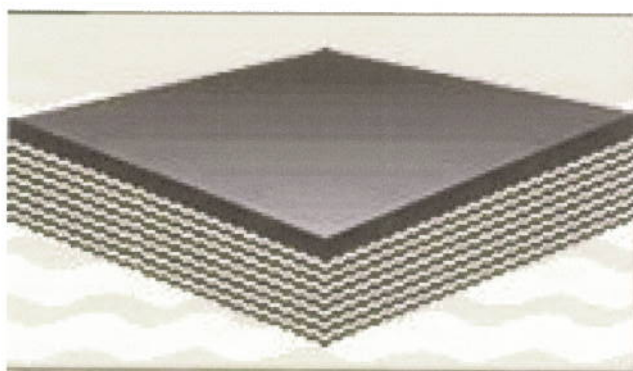
We believe so, following explanations will help you for your evaluations and selections to increase your quality during textile printing applications.

for further details please do not hesitate to contact us;

info@atrchemicals.com

Printing Blankets

Generally polyurethane and rubber blankets are used for printing machines.(rotary, flat and sampling tables)



A good blanket ,which is fulfilling your needs, must have some typical properties stated below:

- 1.High printing accuracy
- 2.High level of repeat accuracy
- 3.High chemical and temperature resistance
- 4.High dimensional consistency under stress



The Meanings of Certain Terms Related to Applications

Adhesion:

The molecular attraction that holds the surfaces of 2 dissimilar substances together.
(ie:between adhesive film and fabric or between adhesive film and blanket)

Cohesion:

The molecular attraction or joining of the surfaces of 2 pieces of the same substance.
(ie:intramolecular attractions of adhesive)

Tack:

The other state of Adhesion between adhesive film and fabric.

Thermoplastic Adhesive:

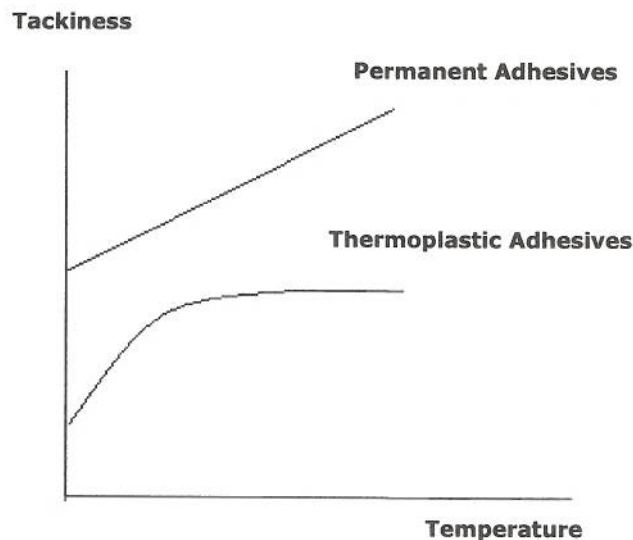
Printing adhesive, which is not tacky at room temperature, but has to be heated to activate.

Thermosensitive Adhesive:

Printing adhesive, which is tacky at room temperature, but on the other hand tackiness can be increased by heating.

Permanent Adhesive:

Printing adhesive, which is tacky at room temperature, no need to heat to activate.



Normally we prefer that Adhesion (between fabric and adhesive) must be smaller than Adhesive's Cohesion and Adhesion (between adhesive and surface)



Better Preparation of Blanket for Printing

As we never tired to say that regular care processes definitely will extend the life of your blanket. When a printing blanket is new and has never previously been used, probably it's surface is smooth and glossy. Before applying any kind of Adhesive nor Protective Resin Film, the surface should be washed by proper solvents and roughened by pumice powder. By this way the contact area between surface and adhesive film is increased, better adhesion is obtained on the surface.

For this purpose following procedure is recommended:

1. Apply manually a paste comprising approx. 80% impalpable pumice or silica powder + 20 water, rub the blanket thoroughly with brushes, wash it using the printing blanket washing unit allowing the blanket to complete several full runs.
2. Make several full runs of the blanket with *IDROSOLVEOL* or *ADHESOLV*, using washing unit of the machine.
3. Take off washing unit.
4. Place the doctor blade – make 2-3 turns of blanket with *IDROSOLVEOL*.
5. Dry the blanket.
6. On top, apply *RESINA MC*, 150 g/m² or the needed quantity to obtain a well levelled printing surface.
7. On top apply 120-150 g/m² Thermoplast or Permanent Adhesive. Let the blanket turns for at least one hour in order to obtain complete evaporation of solvents, before start printing.

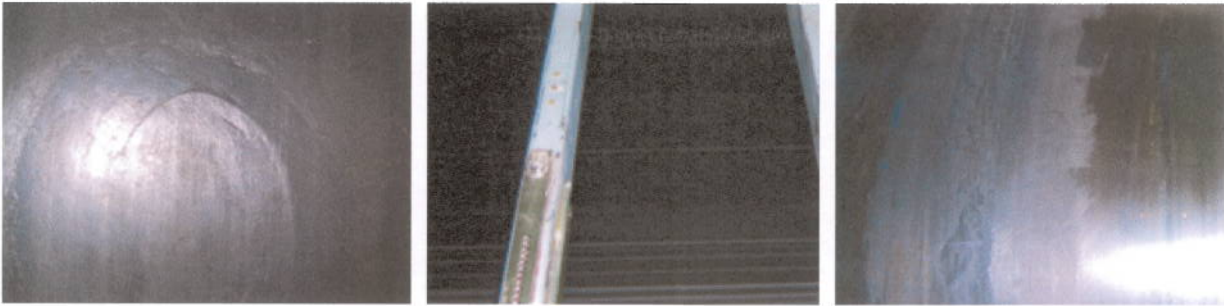
(**Similar methods can be used for Table and Sampling Machines)

Application Way of ATR Resines and Adhesives:

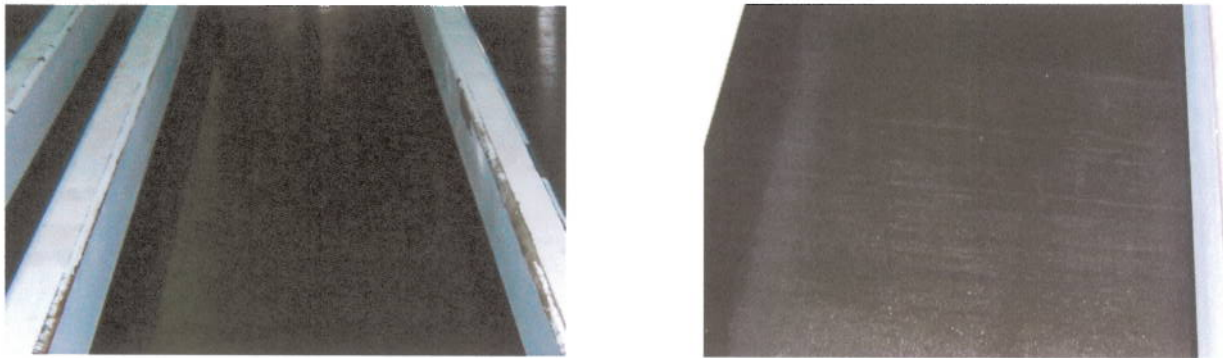
1. Before applying the adhesive, check that the washing unit which has been detached beforehand, has not left any residue of water on the blanket.
2. Now attach the metal blade (normally supplied by the manufacturer of the machine) to the two supports provided, at right angles to the direction of advance of the blanket.
3. Pour the adhesive from a suitable vessel quickly and evenly over the whole length of the blade, at the same time starting up the run of the blanket in a continuous manner and at the minimum speed.
4. If the product gets too viscous during application ATR adhesives and *RESINA MC* can be diluted with 3-4% acetone or ethyl acetate.
5. When the required amounts of adhesive has been applied, the blanket is left running until only a small residue of adhesive remains in front of the blade.
6. On completion of this operation the blade must be lifted quickly and simultaneously on both sides by means of the support screws.
7. To achieve good application and optimum adhesion of additional reinforcing layers, use approx. 120/150 gr/sqm of ATR adhesives on the blanket.

After completion of the application, let the blanket turn for at least two hours, then start printing.

PS: Blanket Supporter Rollers of Machine must be well teflonated...



BEFORE RESIN & ADHESIVE APPLICATION



AFTER RESIN & ADHESIVE APPLICATION

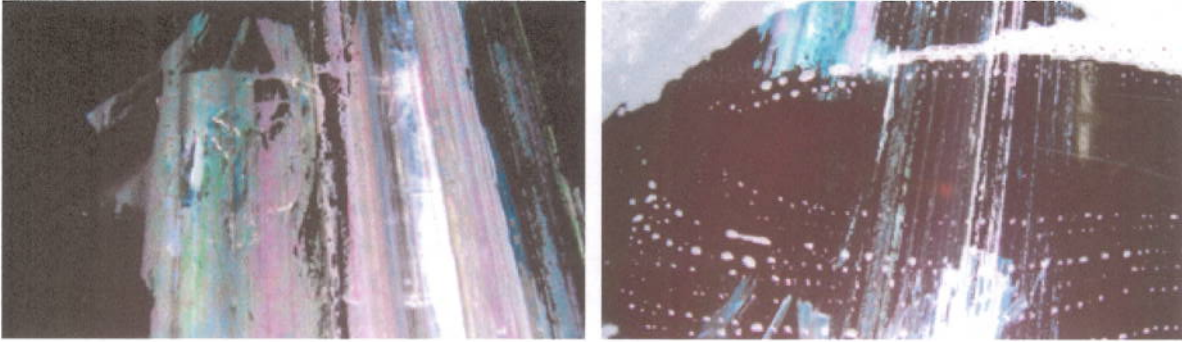
Cleaning Methods of Blanket:

A.

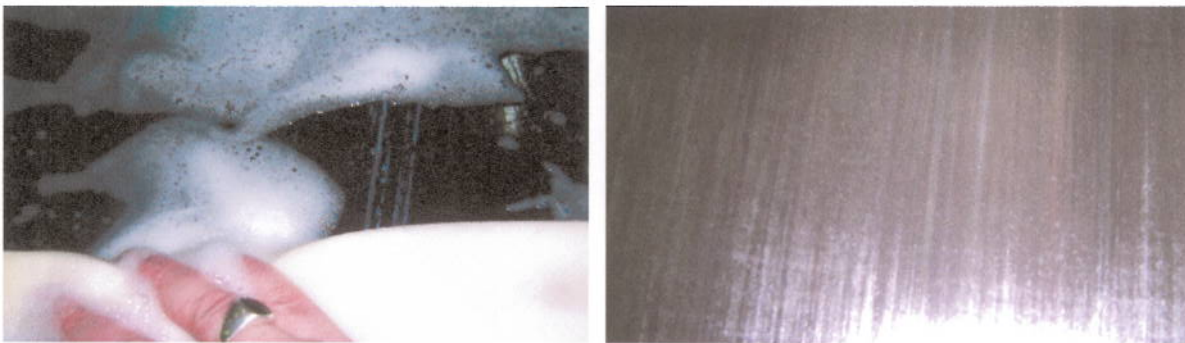
1. Prepare a mixture 20-25% *REMOVER NLP* or *ATRACLEAN ML* + 75-80% plain water.
2. Attach a piece of fabric of the same width as the film of Adhesive and 2/3 meters long to a fabric feed roll or to a screen printing carriage.
3. Soak the fabric thoroughly with the mixture *REMOVER NLP* or *ATRACLEAN ML* + plain water.
4. Take off the washing and drying unit.
5. Make the blanket turn for 10/12 turns, keeping the fabric well soaked.
6. Then remove the fabric and insert washing and drying unit in order to remove completely the mixture *REMOVER NLP* or *ATRACLEAN ML* / plain water.

B.

1. Prepare a mixture 20-25% *REMOVER NLP* or *ATRACLEAN ML* + 75-80% plain water.
2. Clean carefully the Adhesive film with sponges or cloths well dried with the mixture *REMOVER NLP* or *ATRACLEAN ML* / water.
3. Remove carefully the mixture *REMOVER NLP* or *ATRACLEAN ML* / water, with plain water using clothes.



BEFORE CLEANING APPLICATION



AFTER CLEANING APPLICATION

Stripping of Adhesives:

1. Before starting to remove the film, take off the washing and drying unit.
 2. Now attach a piece of heavy fabric (cotton or wool) of the same width as the film of adhesive applied to a fabric feed roll or alternatively to a screen printing carriage. Soak the fabric thoroughly with *IDROSOLVEOL* or *ADHESOLV*. While advancing the blanket at slow speed, taking care to ensure that the fabric is kept well soaked with *IDROSOLVEOL* or *ADHESOLV*.
 3. Exert a pressure on the blade located on the printing blanket, continue this operation until the film of adhesive has been removed completely.
 4. Remove the fabric and spray the blanket with *IDROSOLVEOL* or *ADHESOLV* until it has been cleaned completely.
- Wipe the blanket thoroughly with *IDROSOLVEOL*.

Please Check our Application Movie for Details

N.B.: our suggestions are only intended for purposes of information and must not be used as a pretext for infringing on any contingent patents. Since the conditions under which our products are applied are beyond our control it is advisable to conduct laboratory trials before putting them to actual use.

No kind of reimbursement can be demanded to the manufacturer for damages to things or people caused by improper use of the product or for not having respected the safety rules as per supplied material safety data sheet.



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